

Modern packaging

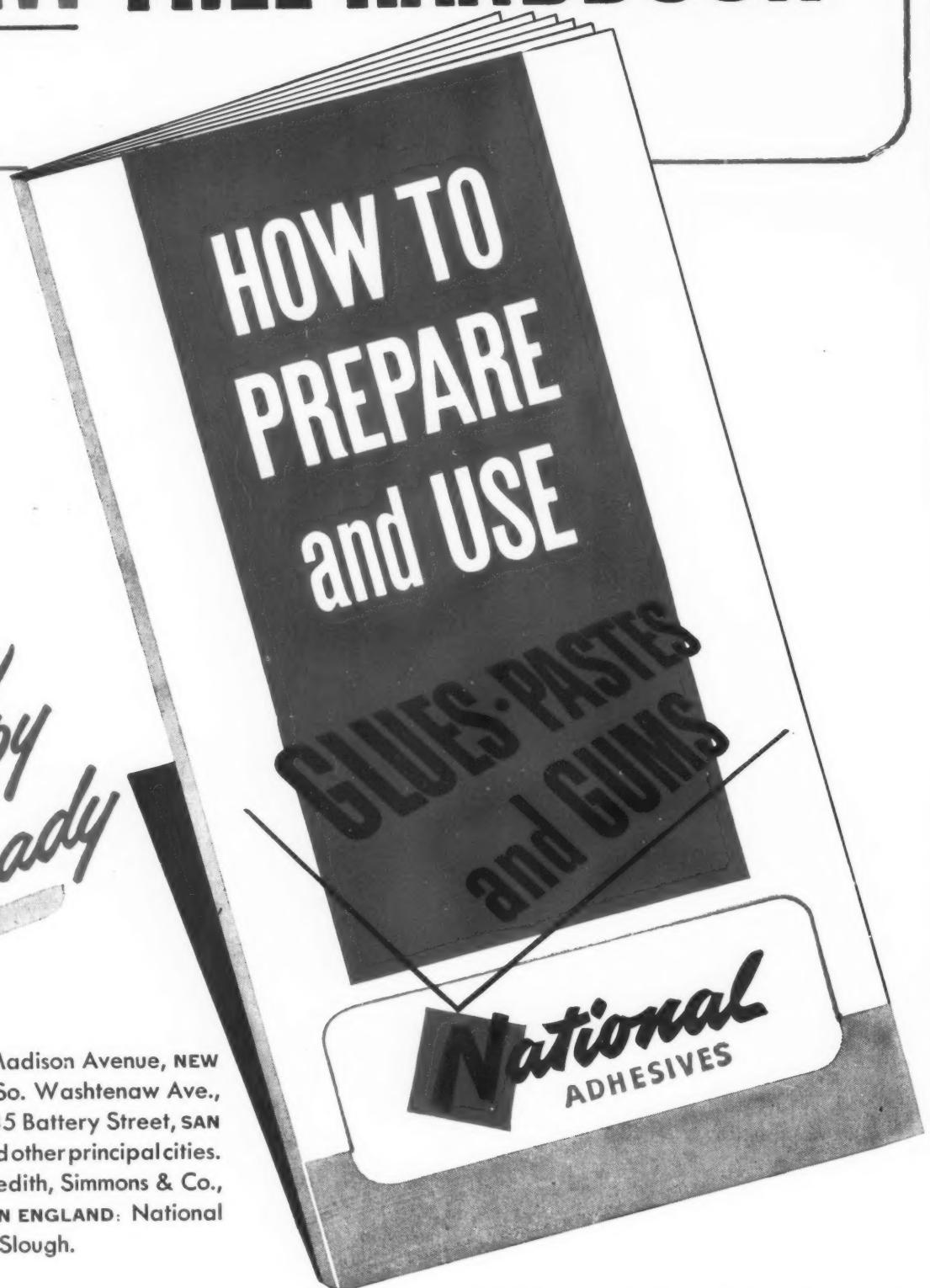


Nominated for packaging's Hall of Fame. Story on Page 86

January 1949

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Modern packaging



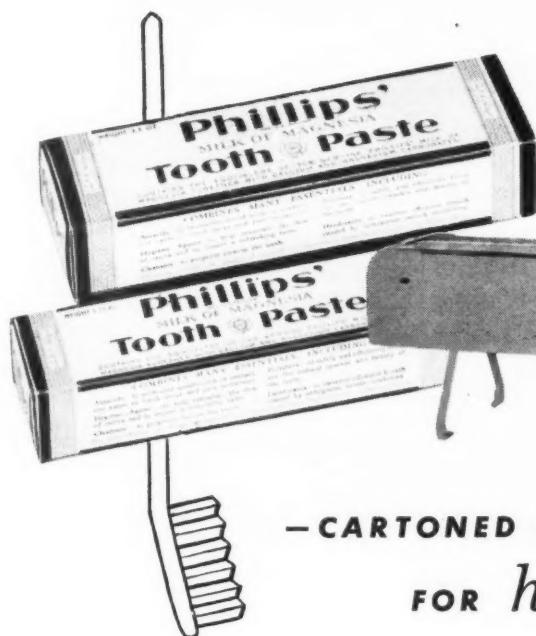
Vol. 22 No. 5

January 1949

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one REDINGTON
+
one MINUTE

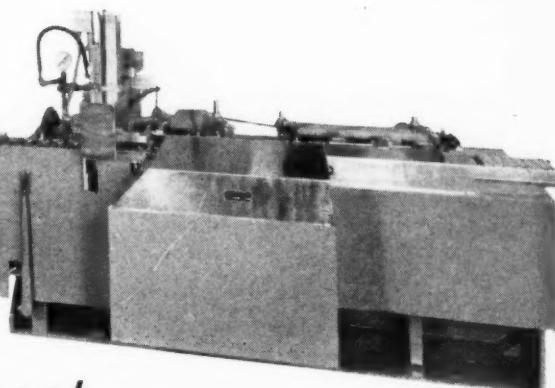


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Like other REDINGTON cartoning machines used by the Chas. H. Phillips Co., Division of Sterling Drug, Inc. and other leading package-goods manufacturers . . . this efficient machine features exceptionally easy operation . . . continuous loading . . . simple, instant adjustment for size changeover . . . and many more outstanding advantages. Put them all together, they make REDINGTON the answer to *your* production-speeding, cost-cutting packaging problems!



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1949

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St. Ave., Blomfield St., London, E. C. 2.

Published the 15th of each month by Modern Packaging Corp. Publication office: Twentieth and Northampton Sts., Easton, Pa. Subscription \$5.00 per year in United States; Canadian, \$5.50; foreign, \$6.00. Two-year subscription: United States, \$8.00; Canadian, \$9.00; foreign, \$10.00. All foreign subscriptions payable in United States currency or equivalent in foreign currency computed in current exchange by money order or by draft on a New York bank. Price this issue, 75¢ per copy. Copyright 1949 by Modern Packaging Corp. All rights reserved including the right to reproduce this book or portion thereof in any form. Printed in U. S. A. Acceptance under the Act of June 5, 1934, at Easton, Pa. Authorized October 7, 1936.

MODERN PACKAGING is regularly
indexed in the *Industrial Arts Index*.



Member, Audit Bureau of Circulations
Member, Associated Business Papers

A NEW COVER SERIES

OUR EDITORIAL CONSCIENCE has been troubled by a fault which we believe we share with most publications: too much concentration on that which is new, too little attention to that which is established and proved. In packaging as in publishing, originality pays—but there is much to be learned, too, from a critical re-examination of packages that are long-standing successes; packages that have pioneered in and maintained sound, basic principles.

With this issue, therefore, we inaugurate a new Cover Series, to be devoted to packages that have stood the test of years and earned, we feel, a place in packaging's "Hall of Fame." The package selected each month will appear, in its latest edition, in full color on our cover. Inside, we will devote considerable space to a thoroughgoing analysis of the package—tracing its origin and development through the years, probing into every factor that has contributed to its success.

We do not for a moment assume that the package alone has been responsible for the top sales ranking of any of these famous products. A quality product is still the first requisite. But we do know that *without* a good package and a good trademark, success would have been impossible. Smart management, sales and advertising policies unquestionably will be found to have played an important part. We propose to examine all these contributing factors and present the whole picture, in proper perspective.

The series begins, appropriately enough, with Log Cabin Syrup—a product which for 60 years has exemplified a wonderful package device: the use of package form for the indelible impression of trade name into the memories of its consumers. The story starts on Page 86.

We hope the reading of these stories will be as interesting to you as their preparation has been to us.

The Editors

*Brand
Identification*

*Product
Visibility*



With Thousands of Brands to Choose from ... will the shopper see yours?

Chances are better that she will if you package in sales-proved, Dobeckmun printed bags or wrappers of transparent cellophane or other specially selected film. The combination of high visibility and attractive, colorful printing brings quick recognition, remembrance and sales.

For exceptional economy, examine the Dobeckmun line of 293 "STANDARD SIZES" in transparent bags. Sizes, shapes,

construction and type of film satisfy almost any requirement.

For extra toughness, with transparency, consider "TRITECT" lamination of film and wax.

For finest flexible packaging, "METALAM" printed lamination of film and foil combines high protection with brilliant, sales-producing attractiveness.

Call on Dobeckmun to assist in any packaging problem. Our field representatives are well qualified and willing to co-operate in sales tests or technical investigations. Consult us, without obligation. *The Dobeckmun Company, Cleveland 1, Ohio. West Coast Division, Berkeley 2, California.*

DOBECKMUN
• Self-selling packages in processed films and foils •

Branches:

Atlanta, Boston, Chicago, Cincinnati, Los Angeles, New York, Philadelphia, Portland, St. Louis, St. Paul and Seattle. Representatives everywhere.

LET HEEKIN PUT THE EYE-APPEAL IN YOUR LITHOGRAPHED METAL PACKAGE

MORE than seventy percent of the actual buying of retail items in the United States is done by women . . . in food, drug, candy, cosmetic and other retail stores where the woman in charge of the home does the buying . . . the percentage is higher. That means your package, regardless of what you manufacture and package for marketing, should have eye-appeal. Heekin lithographed cans have what it takes to make the cash register ring. May we discuss your metal packaging with you?



From a baby's bed - a good idea!

ABABY can sure start you thinking —especially this one pointing to her little mattress! It is made of Wataseal, an all-plastic fabric that out-performs conventional ticks many ways.

Wataseal plastic is made with Geon polyvinyl materials that give the mattress many advantages. It's absolutely

wet-proof and washable, won't hold odors and is therefore sanitary. It has excellent tear-proof and rip-proof qualities along with just the right amount of resiliency, and it's away ahead in comfort and cleanliness.

The secret is Geon polyvinyl materials, a great product improver—one that may work equally well for you.

Geon has so many uses and so many advantages that it may suggest a new idea to you in originating or improving a product. For Geon can be used for calendering, coating, extruding and film casting. If an idea strikes you, let us know. You will find us glad to cooperate.

May we remind you that we do not make any finished products from the raw materials we manufacture. We do, however, supply the technical information you may need for a special problem or application. Write to the B. F. Goodrich Chemical Co., Dept. S-1, Rose Bldg., Cleveland, Ohio. In Canada: Kitchener, Ont.



Wataseal plastic fabric
made by Harte and Co., New York, N. Y.



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GEON polyvinyl materials • HYCAR American rubber • GOOD-RITE chemicals and plasticizers

Now let's tackle PACKAGING!



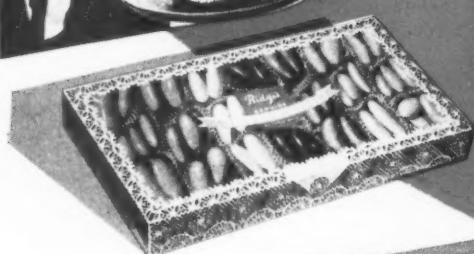
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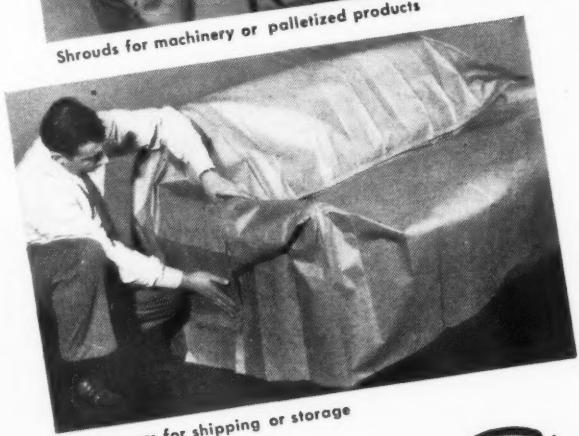
You can't tell a package line to roll up its sleeves and go to work, now that orders are harder to get. They're either built that way or they aren't. And developing packages that know how to slug it out in tough competition has been Milprint's specialty for fifty years.

Call your local Milprint man. He'll share your problem with our package technicians and design artists — a combination that has produced some of the nation's most successful packages. And to help introduce your new packages our merchandising experts can plan and produce your dealer and consumer promotional literature and point-of-sale displays.

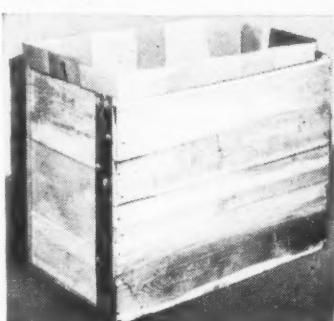
Call or write today. We'll say it with action and results!



Shrouds for machinery or palletized products



Kraft covers for shipping or storage



Waterproof case liners

It's here! A jumbo bag made by a revolutionary new machine. *Now!* Uniformity and greater strength *plus* real packing economies for everyone who uses or needs giant-sized bags.

JUMBAG FACTS

- 1 Accordion folded. No time-consuming interfolds. Snaps open instantly in a single operation. Quicker, easier to use.
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by *Traver* . . .



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Delicate pinks or luscious, ripe reds radiate sales-appeal through Traver transparent packages. These eye-catching overwraps formed from Traver's expertly printed roll or sheet stock retain the glossy smoothness so necessary to an attractive consumer package.

The Atomic brand of Levy & Zentner has added power with Traver overwraps.



Crivella's "Select Pack" tells the story — smooth transparency of Traver packages allows selection of perfection.



Each tomato is clearly visible beneath Traver's carefully printed sales label
No distracting wrinkles or smudges

Photos show Traver transparent sales packages in actual use.



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economy and convenience
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lubrication with

WIRZ
special design
grease-tip tube

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If you want to increase the speed, economy and convenience of your product-in-use, it will pay you to

try WIRZ collapsible metal tubes. The grease-tip tube is one of many practical tube designs for a specific purpose produced by WIRZ in the consumer and industrial fields since WIRZ made the first tubes in America back in 1872. Write today for samples and recommendations.



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Write today for complete details.



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Prescription Finishes

Give us your coating problem
We guarantee you an answer based
on your conditions, and not just a
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so many different perplexing packaging problems?**



Gelatin capsules have made history in the field of vitamins and are the preferred dosage form today. But who in the world would have thought that gelatin containers would also be the answer to such packaging problems as smoke for toy trains, sun-tan oil, cigarette lighter fluid, bubble bath—or such things as pie flavors, margarine coloring...even golf ball centers and glue.

The people with these problems found a unit gelatin container the answer for their product. Or at least they did after they learned more of Gelatin Products Rotary Die Process for making containers with accurate unit measure, airtight sealing, sanitary protection, and the economy of fully automatic, high speed rotary die production. Size, shape and color?—take your choice, for these intriguing containers have versatility and will lend individuality and appeal to your product.

Do you have a unit packaging problem? Can the gelatin container solve it for you? Who in the world could know? When developing new products or packages, consider the advantages of the gelatin container.

YOUR
PRODUCT

GELATIN PRODUCTS *division*

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**There's greater sales appeal in
"family packaging"**



- **Folding Cartons**
- **Corrugated and Solid Fibre Boxes**
- **Kraft Grocery Bags and Sacks**
- **Kraft Paper and Specialties**

HERE'S Gaylord modern packaging at work—every package in the line of Sunnen Automotive and Industrial Products—from corrugated shipping cases, through heavy Kraft boxes and small folding cartons—has been designed to take advantage of the sales appeal of a family of products.

Gaylord Packaging Specialists can create effective "family packaging" for your products, too. Call or write the nearest sales office.

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That call should get the kids out of bed and bring them downstairs in a hurry . . . especially when they know it's Smoky Ridge Syrup. Pour this syrup with its tangy maple flavor over a stack of wheats and you've got a combination that's a favorite with everybody who knows good things.

At the Canners' Convention in Atlantic City, Crown will be at Booth E-23, Convention Hall, January 14-19.



CROWN CLOSURES

Approved by millions of housewives

WE'RE HAVING HOT CAKES AND SYRUP!

Packers, also, have recognized

a favorite combination by using

Crown Screw Caps on their

glass containers. The Illinois Food

Products Company of Chicago seals Smoky

Ridge Syrup with Crown Closures because

they are precision made and trouble-free on their production lines. Years of research and experience

behind Crown Closures are all important factors

in the satisfaction packers derive from their use. Then,

too, Crown's exclusive Deep Hook Thread, which reaches under the glass container thread, exerts

more sealing pressure by greater vertical

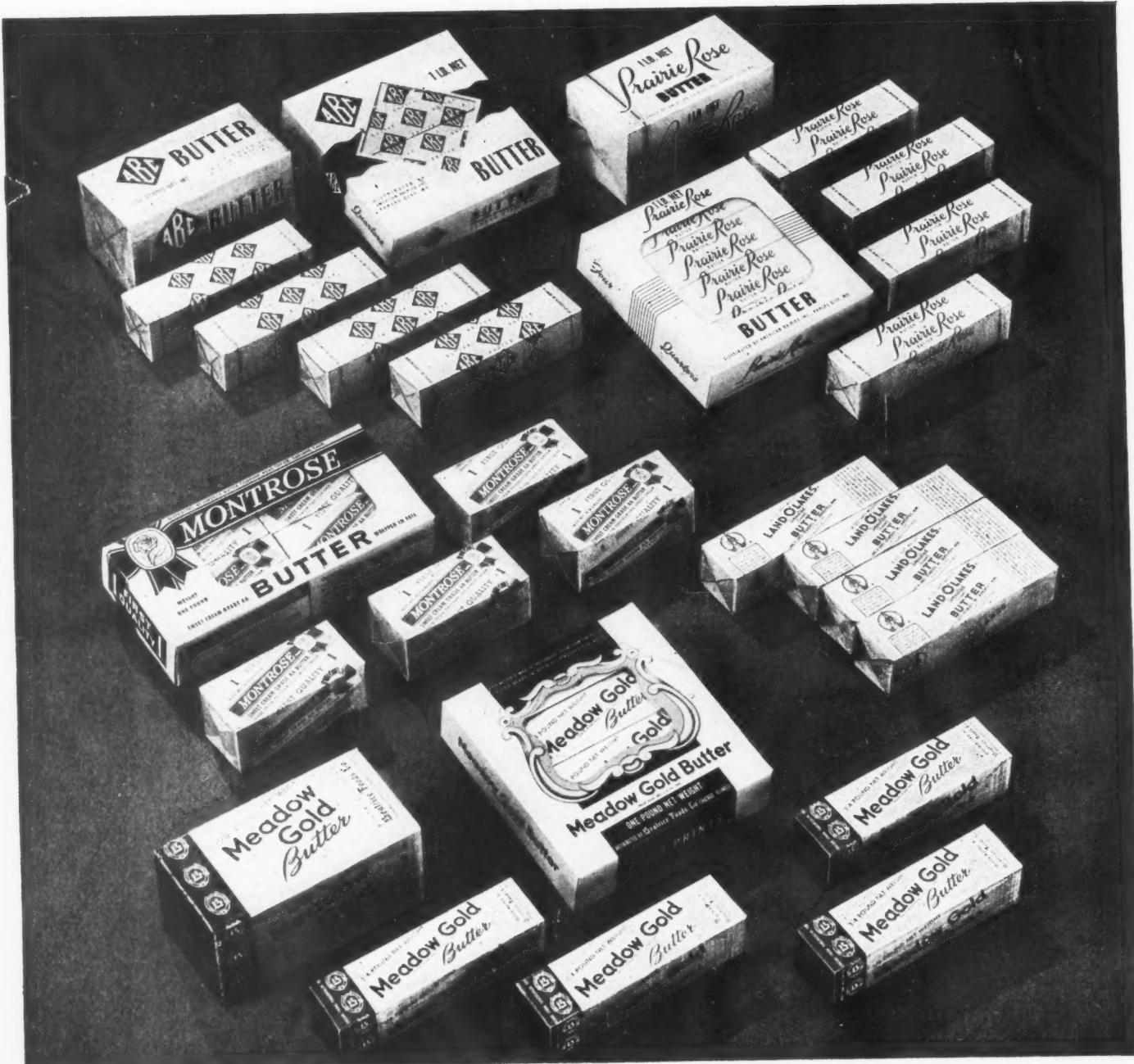
"down-pull," without side wedging.

The best proof of these facts is a production run under the scrutiny of the packer himself.

Crown Cork & Seal Co., Baltimore 3, Md.

World's Largest Makers of Metal Closures.





Reynolds Aluminum

Supplied in rolls and sheets,
printed and unprinted.

Butterwrap



REYNOLDS METALS COMPANY

Dairy Industry Division, Richmond 19, Va.



**The wrap
the butter
industry is
coming to...**

More and more users are profiting by the quality protection, eye appeal and merchandising value of the Reynolds Aluminum Butterwrap. Two years of actual marketing experience have definitely demonstrated its 7-point superiority:

1. Keeps score—delivers butter churn-fresh.
2. Prevents weight loss.
3. Prevents odor contamination.
4. Prevents oxidation of fat due to light exposure.
5. Makes a perfect re-wrap.
6. Can be used on all existing butter packaging equipment.
7. Prints beautifully—gives greater scope to modern packaging.

Reynolds Aluminum Butterwrap will strengthen your sales position. As the number of users grows, it will strengthen the industry. Get your brand name in our next picture!

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THE SMALL operator who fills a few gross of tubes per day . . . the large operator who fills hundreds of gross per day . . . each finds Stokes equipment best.

Sixteen models with many patented features range from the small hand-operated bench models to the large full-automatic machine which fills, closes, seals, and ejects up to 150 gross of tubes per day.

Products handled in Stokes standard or specially modified machines may be

as thin as water . . . as heavy as facial clay . . . as stringy as roofing cement. But speed, durability, ease of cleaning, accuracy of measurement, perfection of seal, and rapid adjustment for change of sizes or material characterize all Stokes machines.

For packaging products which tend to leak or seep ask about the Stokes-patented Westite Hermetic Closure.

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Stokes makes Tablet Machines, Pharmaceutical equipment, Tube Fillers, Vacuum and Special Processing equipment, Vacuum Pumps and Gages, Plastics Molding Presses, Water Stills and Special Machinery.

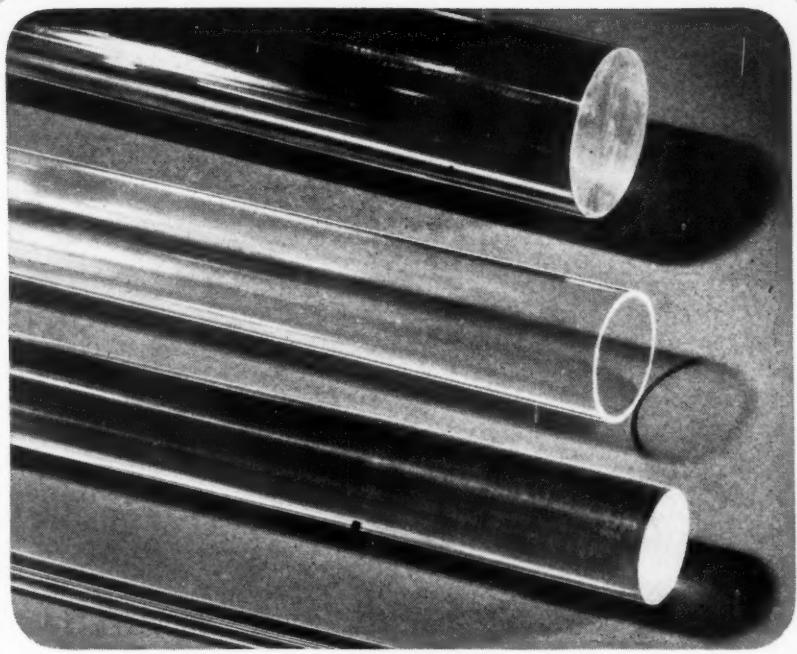


Stokes Fully Automatic
Tube Filling, Closing
and Sealing Machine,
Model 90D

STOKES

KNOWS
HOW

A "JEWEL" OF A PLASTIC



You can say that convincingly about Methacrylate from Plax — literally, too. Its unblemished crystal clearness makes it a top material for costume jewelry — fountain pen stocks — furniture — and many other products where jewel-like eye appeal is desired. It is also a scintillating display material.

On the industrial level, excellent optical and other characteristics have prompted its use in sight gauges, in chemical pipe and equipment. A versatile plastic, easily heat-formed into many different shapes, Methacrylate is a material well worth investigation — and Plax is probably the best source of help you can find.

CHART ON "HOW TO USE PLASTICS"

Now available for the asking is a table of properties for six materials available from Plax in various forms and formulae. This has been incorporated in the Plax catalog, which also contains helpful information on the primary uses of each material.

A copy will be sent promptly upon receipt of your request.

Between the resources of Shaw Insulator Company, Irvington 11, N. J., and Plax Corporation, Hartford 5, Conn., you can find help on virtually every material and method in plastics today.



P. O. BOX 1019 ★ HARTFORD 11, CONNECTICUT
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Do these doodles mean debits for you?

These doodles represent light, air, insects, and moisture—four natural phenomena that too often cause unnatural losses for a packer.

But you'll never find these doodles on the debit page of packers who put their products in *light-proof, air-proof, insect-proof, moisture-proof* metal containers.

AMERICAN CAN COMPANY

New York • Chicago • San Francisco

This trademark **CANCO** is your assurance
of quality containers. Look for it!

Other advantages of the can

1. Cans are break-proof.
2. Cans protect contents against light, air, insects, and moisture.
3. Cans are light—mean lower shipping costs. Compact—mean more storage and display space.
4. Cans mean eye-appeal for impulse buying.
5. Cans are tamper-proof.
6. Cans are easy to open and close.



Childhood Fancies

- You'll sing a song of sales,
when your product is keyed
to the "nursery-rhyme" set
with these lovely, lively DeJonge papers.

- Primp up your box and gift
packaging for children
with a "toy-chest" full of paper styles
that are a "treasure-chest" for you.

- Samples upon request

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DeJonge & CO.

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CHICAGO · BOSTON · PHILADELPHIA

CANADA: E. H. Wilkinson & Co., Toronto



Award Winning



FOIL BOX

wins more customers

The **AUTOCRAT** box, one of the many sales-producing Foil Cartons made by United, won the Blue Ribbon Award in the Tea Bag Classification of the 12th Annual Food Packaging Show.

Critics' applause is important, but consumers' acceptance is even more important. Let United's sales-trained designers and package engineering show you how Foil Cartons can step up the sale of your product. Send us your present folding box or display carton for suggestions. There is no obligation, of course.



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Carton Plants: Victory Mills, N. Y.; Syracuse, N. Y.; Brooklyn, N. Y.; Cohoes, N. Y.; Springfield, O.



**FOIL CARTONS SELL
MORE GOODS—FASTER**

Step up your Product's SELLING POWER



Check the package your product appears in for the selling qualities it should possess. Rate it for immediate *eye appeal*, for the well-groomed appearance that skillful design and application impart. Score it for distinctive *shape*, and for customer *confidence* in the protective qualities of its materials and construction. Add to these ratings your requirements for a reliable and cooperative source of supply, and your findings will point clearly toward lithographed metal containers—as produced by National Can.

When you call in National Can, you benefit from nearly fifty years of experience in the fabrication and processing of metal containers. Moreover, you have at your command a complete lithography service, set to help boost your product's selling power through more striking design and layout, improved color and art.

Yes, there's a *bonus* in doing business with National Can, a bonus that pays off for you in better sales. To learn more about this complete container service and supply, just call our nearest sales office or plant.

7170

NATIONAL CAN

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• A NEW STUDY OF THE \$5 BILLION PACKAGING MARKET to help you plan your selling and advertising

PACKAGING IS BIG BUSINESS

The Department of Commerce in June, 1947, rated the design, testing, production, shipping and merchandising of packages as a five billion dollar business. Considered as a separate industry, packaging rates as one of the largest in the country — larger than steel and machinery, larger than the automobile industry at its 1939 level. And its volume is increasing as more products find their way into packages and more labor-saving packaging machinery goes on the production line.

AN ACTIVE, FLUID MARKET

Faced with increasing competition and shrinking profit margins, manufacturers are closely scrutinizing packaging materials, methods and equipment. They are eagerly searching for ways to cut production, distribution and sales costs, and improve the style, sales appeal, product protection, brand identification and take-home-value of their packages.

Always a fluid market, the packaging industry is in a ferment of change as products move from one type of container to another. Packaging's basic forms—the metal can, glass jar, paper wrap and boxboard carton — have all been improved. New materials, and some

old ones that were never used in packaging before, have made inroads in the market—materials like aluminum, plastic films and fibers to name but a few. And these changes in material often mean a change in equipment all along the line.

ADDITIONAL MARKET DATA COMING

Modern Packaging presents this study as the first part of a complete and continuing analysis of this lucrative and growing market. Future data sheets and studies will contain current statistics and further information on how the industry buys, what it buys, and how it is organized—all designed to help you evaluate your product in terms of this market and to help you plan your advertising and selling to it. You'll find these sheets easy to file in the handy file folder the first study comes in.

"MUST" READING FOR SALES-MINDED EXECUTIVES

Get your name on the mailing list for this complete analysis by reserving your copy of the study now. Just tear out and send us the attached coupon.



32 PAGES OF ILLUSTRATIONS, CHARTS AND TEXT CONTAIN CHAPTERS ON:

- Size of Packaging Market
- Industries That Comprise the Field
- What the Packaging Field Buys —
- Materials and Supplies
- Containers
- Machinery and Equipment
- Services
- Buying Influences
- Why Packaging Is a Horizontal Market
- Growth of the Packaging Field
- How Various Company Departments Influence Buying

RESERVE YOUR FREE COPY NOW

Modern Packaging
122 East 42nd Street, New York 17, N. Y.

Please send me, without obligation, my free copy of
"The Packaging Market and How to Reach it."

Name.....

Position.....

Company.....

Products.....

Street.....

City..... Zone..... State.....

1-49 MPK

**Modern
packaging**
MAGAZINE

122 East 42nd Street, New York 17, N. Y.

EVERY YEAR FO



41 42 43 44 45 46 47 48

R FOR 8 YEARS . . .

More eyes have reached for more products in cartons of Coated Lithwite*

(the quality, clay-coated board, plus!)

HOW has *Coated* Lithwite climbed to the position it holds, today? Why is it considered by so many carton buyers as the *standard of comparison* for eye-catching brightness, for outstanding printing, folding and sealing qualities? It's something *more* than the modern-day process which Gardner-Richardson uses

to make this quality clay-coated board. And that "something more" is the skill, knowledge and perfected techniques that come *only with experience*. Gardner-Richardson has 8 straight years of that experience with *Coated* Lithwite . . . with over 90 years of board-making experience to back it up.



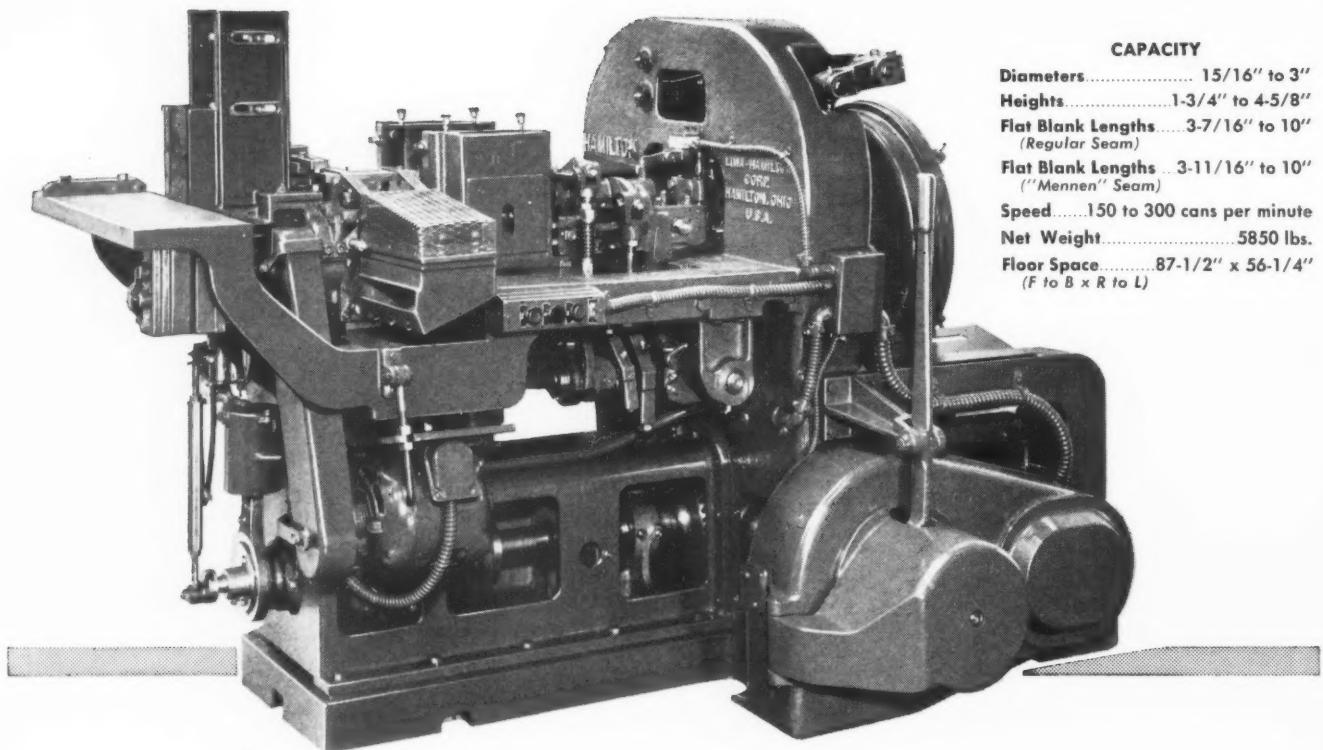
Like more details about *Coated* Lithwite? Like to know how it may help give your product the important point-of-sale plus *every* product needs, today? Write.

THE GARDNER-RICHARDSON CO.

Manufacturers of Folding Cartons and Boxboard, Middletown, Ohio

*Reg. U.S. Pat. Off.

Sales Representatives in Boston, Chicago, Cleveland, Detroit, New York, Philadelphia, Pittsburgh, St. Louis



CAPACITY

Diameters	15/16" to 3"
Heights	1-3/4" to 4-5/8"
Flat Blank Lengths	3-7/16" to 10" (Regular Seam)
Flat Blank Lengths	3-11/16" to 10" ("Mennen" Seam)
Speed	150 to 300 cans per minute
Net Weight	5850 lbs.
Floor Space	87-1/2" x 56-1/4" (F to B x R to L)

New bodymaker with beading attachment for talcum-type cans

(HIGH SPEED - FULLY AUTOMATIC)



This fully automatic bodymaker has been developed primarily for dry package work using the "Mennen-type" side seam. It will turn out

square, rectangular, round or oval can bodies and may also be converted for plain side seam. It is the latest addition to the extensive line of Hamilton-Kruse can-making machinery.

One of several important features is the adjustable beader built into the machine itself. This attachment will make one bead in the can body near the top and start the top edge inward for subsequent cover assembly. The tooling can also be arranged for inward or outward flange.

Either lithographed or plain sheets can be handled. Feed is completely automatic. A roll doping-

attachment applies compound to both hooks when required. The machine is equipped with a 3-hp motor for main drive and a 1-hp motor for flexing operation — complete electrical controls include electric interlocking for shutting down machine in case of jams or doubles.

The 101 bodymaker is a precision product in every respect and will substantially increase output. It was designed by Mr. Peter Kruse and is built by Lima-Hamilton's Hooven, Owens, Rentschler Co. Division at Hamilton, Ohio.

* * *

For complete information and specifications, write to Roland H. Johnson, Sales Manager, Can Machinery Department, Lima-Hamilton Corporation, 60 East 42nd Street, New York 17, N. Y.

Chicago Sales Office: 400 West Madison Street, Daily News Building, Chicago, Illinois

DIVISIONS: Hamilton, Ohio—Hooven, Owens, Rentschler Co.; Niles Tool Works Co., Lima, Ohio — Lima Locomotive Works Division; Lima Shovel and Crane Division.



PRINCIPAL PRODUCTS: Hamilton-Kruse automatic can-making machinery; Hamilton heavy metal stamping presses; Niles heavy machine tools; Hamilton diesel and steam engines; Special heavy machinery; Heavy iron castings; Weldments; Locomotives; Cranes and shovels.



Three subjects to refer to when you evaluate your package!

One way to determine the effectiveness of your package is to ask yourself these basic questions:

Does it have sales appeal? Impulse buying plays a big part in today's self-service selling. An effective package should be an effective salesman. It should be able to attract the shopper and deliver a selling message.

Does it do a good protective job? The value-conscious shopper wants full value in a product. The package must do an adequate job in protecting the original quality of your product on its journey to the consumer.

Is it economical? Alert manufacturers are examining packaging costs. They want the packaging material to supply the necessary merchandising and protective factors at lowest cost. And to operate with high efficiency on automatic packaging machinery.

Packaging authorities agree that these three basic points are always a timely yardstick to measure effective packaging. You may find it helpful to evaluate your present package in terms of today's needs. E. I. du Pont de Nemours & Co. (Inc.), Cellophane Div., Wilmington 98, Delaware.

DuPont
Cellophane

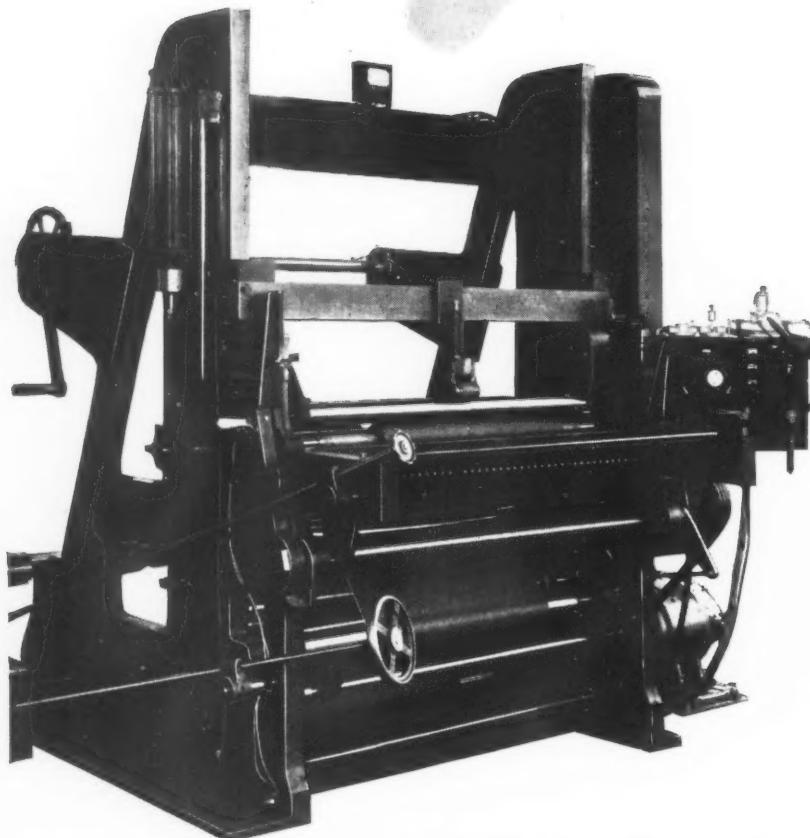
Shows what it Protects—Protects
what it Shows... at Low Cost



BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

Here's A Slitter That Gives You: *Accurate Rolls. Easily Separated. Clean, Dustless Cuts...at 1200 FPM!*

**ONLY THE KIDDER MERCHANT MODEL
SLITTER HAS ALL THESE ADVANTAGES:**



For low cost, low maintenance, high speed slitting, get the facts on the Kidder Merchant Model Slitter.

- Modern design—completely anti-friction throughout.
- Shear cut style — surface wind — clean, dustless cuts so accurate the rolls practically fall apart.
- Speeds up to 1200 fpm.
- Automatic roll diameter setting device.
- Pneumatic counter balancing and top riding roll lifting device.
- Water cooled friction brake.
- No vibration — frame and parts are of heavy, rugged construction.
- Widths 42" and 52".



KIDDER PRESS COMPANY, INC.
DOVER, NEW HAMPSHIRE

C. P. ROBINSON

Special Representative to Paper Mills on Slitters and Rewinders
Graybar Bldg., New York 17, N. Y.

MACHINERY SERVICE COMPANY

P. O. Box 33, Los Angeles 11, California

A. E. MARCONETTI, INC. — 11 W. 42nd Street, New York 18, N. Y.

give you

1. Clean, Accurate Cutting
2. High Speed, Dust-less Operation
3. Easy Separation of Rolls

Can you fill in the missing words?

1. Leading packers increase _____ by packing in glass.

ANSWER:

Sales—volume—profit . . . all fit that blank! Glass-packed products have great sales appeal. They build volume by attracting impulse sales. Goodness of product is seen by consumers. And glass boosts repeat purchases, too, by satisfying customers. Profits follow naturally!

3. For ten years, consumer preference for glass-packed products has steadily _____.

ANSWER:

Demand for glass-packed items has steadily increased. Duraglas container national advertising has helped build this great demand. Many leading packers take advantage of Duraglas container fame by specifying in their advertising and on labels, "Packed in Duraglas containers."

2. Buying all your packaging needs from Owens-Illinois saves you _____.

ANSWER:

This one's easy. Buying all your needs from Owens-Illinois saves you time, cost and worry. Famous Duraglas Center assures you benefits of continuing packaging research. "One-stop" ordering saves you time. O-I's modern, complete facilities mean low cost to you, freedom from worries about container quality.



4. Impulse purchases of processed foods average 45.5% in self-service stores. Packing in _____ boosts impulse sales.

ANSWER:

Appetite appeal is fully revealed . . . customers see product quality before they buy. Every Duraglas container is a miniature showcase for your product—sparkles an invitation to buy! And clean, sanitary Duraglas containers go on pleasing customers in the home.

Scoring

Three or four right—You are alert and progressive. You are packing success by packing in glass!

Two right—You've discovered that glass-packing is profit-packing. You can get fuller benefit by a fuller application of your knowledge.

One or none right—You are losing sales that other packers are winning. You can vitalize sales and volume by giving your brand the advantages of glass-packing.

Duraglas CONTAINERS SELL ON SIGHT

TRADE MARK REG. U.S. PAT. OFF.

OWENS-ILLINOIS GLASS COMPANY • Toledo 1, Ohio • Branches in Principal Cities

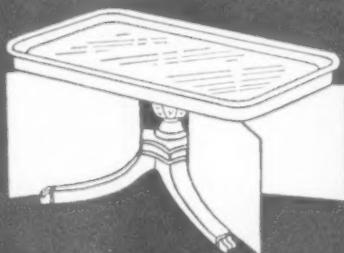
"Engineered for Travel"

Packaging a Duncan Phyfe coffee table

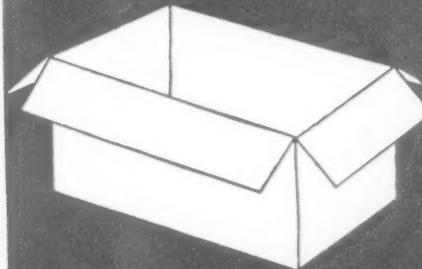
1. Top & Glass Protector



2. Stur-di Test Suspension



3. The Box



Look For ...

"Engineered For Travel"



TOP, THIS SIDE UP UP
FURNITURE
FRAGILE, HANDLE WITH CARE

Precious
NEW FURNITURE
FOR YOUR CUSTOMERS

PACKAGED IN
OLD DOMINION
"Engineered for Travel"
PACKAGES



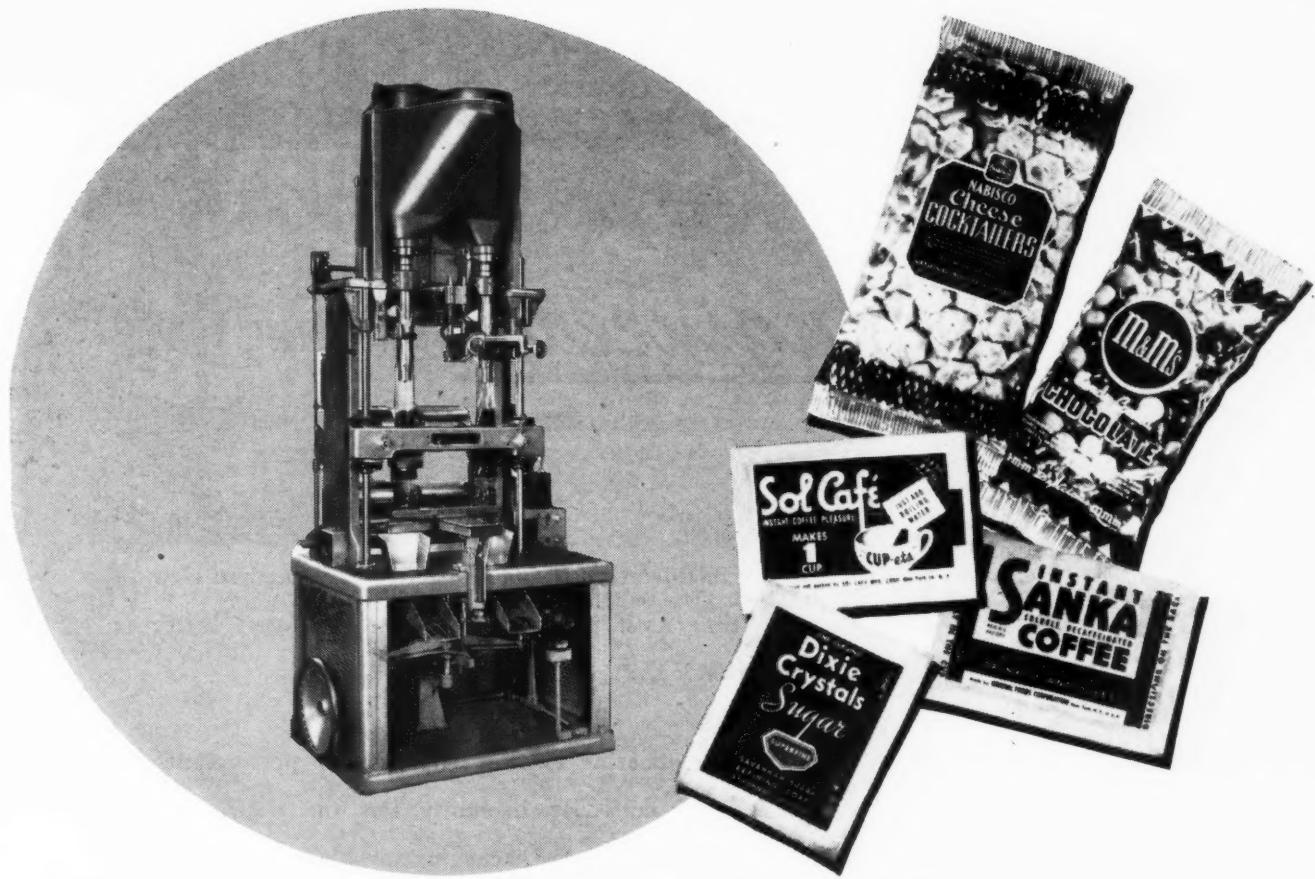
THE PRIZE WINNING PACKAGE



OLD DOMINION

Box Company Inc.
CHARLOTTE, N. CAROLINA

Eight plants Throughout The South Making Every Type of Paper and Fiberboard
Package, Set-Up, Canister, Corrugated, Folding, Visi-Tainer Standard Line



**FORM, FILL AND SEAL YOUR PACKAGE
WITH THE  PACKAGING MACHINE**

The Stokeswrap Packaging Machine forms, fills and seals the package, taking the printed or imprinted web from the roll — at speeds from 50 to 120 packages per minute, depending on size of package, kind of web and nature of material.

The web may be of Cellophane, Pliofilm or approved heat-sealing paper or foil. Plain printed — single, double or laminated — web can be used as supplied by any convertor; and the package may be either of the pillow type, or with gusset folds. *Heat-sealing insures a tight package*, yet the serrated or notched cut-off makes it very easy and quick to open.



A wholly owned subsidiary of Food Machinery and Chemical Corporation

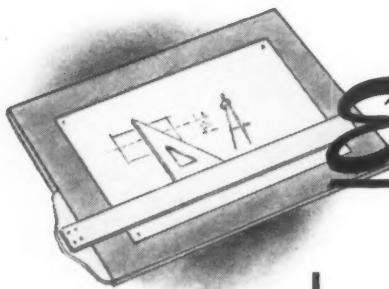
PACKAGING MACHINERY

PAPER BOX MACHINERY

FRANKFORD • PHILADELPHIA 24 • PA.

"Better machines for better packages"

STANDARD-KNAPP PACKAGING MACHINES



Engineered - ALL THE WAY

LABELERS

GLUERS and SEALERS

CASE PACKERS

CAN PACKERS

BOTTLE PACKERS

BOTTLE WASHERS

CASE OPENERS

CONVERGERS

DIVIDERS

STANDARD-KNAPP MACHINES are engineered with one objective constantly in view — they must pay for themselves in faster, better packaging.

Engineering to this hard rule of performance requires not only ingenuity but the desire and ability to analyze packaging problems. Feats of mechanical wizardry are not enough. They must be accomplished under the pressure of daily production requirements. They must not require complicated maintenance procedures.

Standard-Knapp has made it a practice to study production problems and to design equipment built to solve them efficiently, with a minimum of interruption and upkeep expense. Simplicity of operation and ruggedness of construction characterize Standard-Knapp machines.

STANDARD-KNAPP

DIVISION OF HARTFORD-EMPIRE COMPANY
PORTLAND, CONNECTICUT

The best

RIGID PLASTIC BOXES

are Injection Molded by

TRI-STATE

NOTICE: We are the sole inventors and originators. Patents have been applied for on all these designs and infringers will be prosecuted.

NOT ONLY BEST, BUT...

...less expensive too. The injection molding process eliminates the high costs of fabrication while a durable, more attractive package is achieved. Millions of these wonderful rigid plastic containers are selling across thousands of counters throughout the nation.

WE WERE FIRST, BECAUSE...

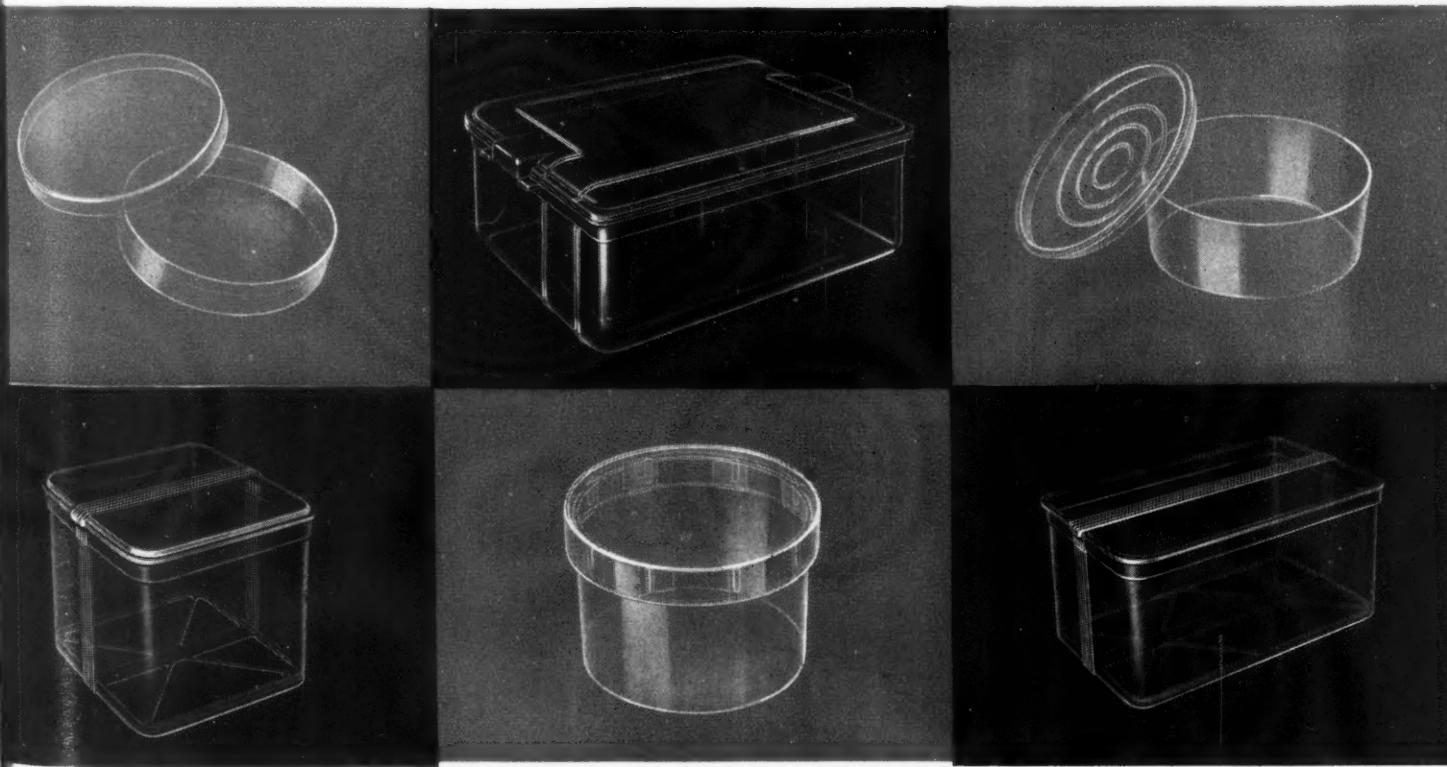
...we took the initiative. We tested and studied until the precise technique of injection molding rigid plastic boxes was developed. Got to be good to be first, and we intend to stay first because we are completely conversant with the problems of producing these containers.

DOUBLE DUTY PACKAGES...

...preserve, protect and display merchandise. Non-toxic, odorless, shatterproof, dimensionally stable packages. One piece, no cemented sections. Washable and colorful...all the colors of the spectrum...opaque or clear as polished plate glass. Distinctive merchandise packages. Handy household boxes when empty.

FILL YOUR REQUIREMENTS...

...we are equipped to mold rigid plastic boxes to your specifications or in a wide range of available stock sizes and shapes. Our design and production experience will help you to achieve your exact requirements at the lowest cost.



TRI-STATE PLASTIC MOLDING COMPANY

HENDERSON, KENTUCKY

New York Offices: 12 E. 41st Street — Murray Hill 3-6572

Shaving Costs for 1949?

Yes, many manufacturers are looking into every operation to seek ways of cutting costs in 1949. A few are cutting packaging costs—but not the razor manufacturers, nor the rest of the two billion dollar soap, cosmetics and toilet goods industry. They, like most alert manufacturers, are planning on winning the 1949 battle for consumer preference. One of their sales weapons is the set-up box. Its versatility turns packaging costs into *sales and shipping savings*.

Investigate today the many cost-saving reasons why the soap, cosmetics and toiletries manufacturers will buy a half billion set-up boxes this year. Then choose the versatile set-up box for your 1949 sales-winning package.



NATIONAL PAPER BOX MANUFACTURERS

Association

AND COOPERATING SUPPLIERS

Liberty Trust Building • Philadelphia, Penn



*Only
cellophane
gives you so much
for your
packaging dollar*

Just the qualities you
need for a successful package!

That's the reason for the widespread acceptance of
Sylvania Cellophane types P-1 and MS for
wrapping shirts, sheets, hosiery and other dry goods.

This cellophane offers you true transparency—
sparkling clarity and sales appeal. Here is
uniform strength that stands up under automatic application,
shipping, and retail handling. Here is dust protection—
the sanitary qualities so important in selling
personal items.

Your Sylvania representative will see that you
get the right combination of properties you need
for successful packaging. Talk over your
packaging problems with him. Or write to
Market Development, Dept. MP-1. You will
find us most cooperative.



SYLVANIA CELLOPHANE

SYLVANIA DIVISION AMERICAN VISCOSA CORPORATION
Manufacturers of cellophane and other cellulose products since 1929
General Sales Office: 350 Fifth Avenue, New York 1, N.Y. Plant: Fredericksburg, Va.



The Perfect Combination

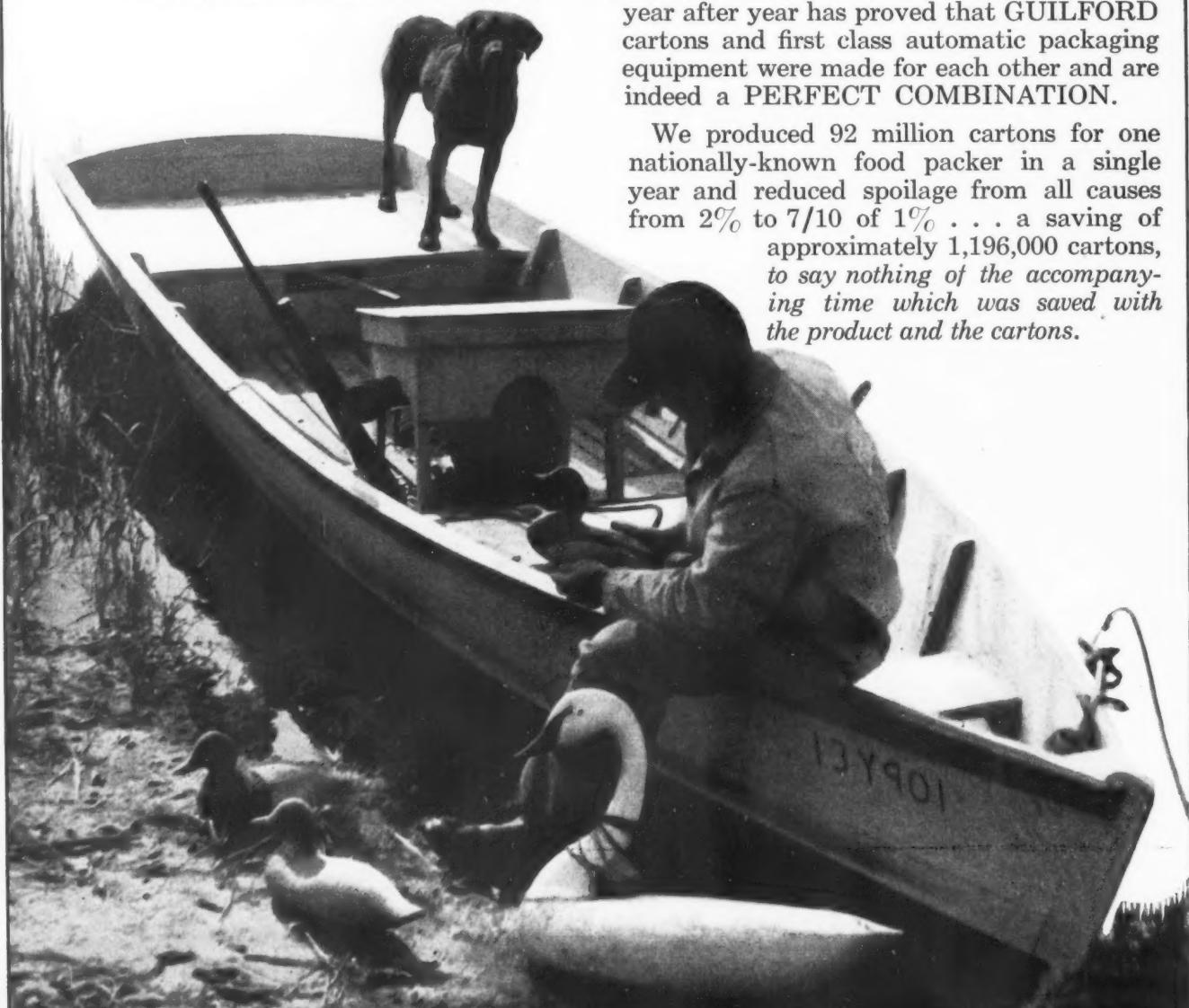
THE hunter and his dog are no more logical and perfect combination than GUILFORD cartons and first class automatic packaging equipment.

GUILFORD cartons have reduced packaging waste to an astonishing degree, due to faithful attention and follow-through on all details in their manufacture.

We realize of course that anyone can make such a statement, but actual performance year after year has proved that GUILFORD cartons and first class automatic packaging equipment were made for each other and are indeed a **PERFECT COMBINATION**.

We produced 92 million cartons for one nationally-known food packer in a single year and reduced spoilage from all causes from 2% to 7/10 of 1% . . . a saving of

approximately 1,196,000 cartons, *to say nothing of the accompanying time which was saved with the product and the cartons.*



THE GUILFORD FOLDING BOX CO.

Haven Street and Ashland Avenue • Baltimore 5, Maryland • Phone Orleans 2043
New York Office: 80 Maiden Lane • Phone: Whitehall 4-5848—5849

QUALITY CARTONS Faithfully Produced



Is the container for your product simply a container . . . and nothing more? Or is it a powerful advertising, merchandising and selling force at work for you?

Many nationally famous products are seen more easily . . . recognized more swiftly . . . bought more quickly . . . because they are packed in rich, royal, eye-stopping Maryland Blue Glass.

BLUE makes your product easier to see . . . BLUE makes your product easier to remember . . . BLUE makes your product smartly modern . . . BLUE gives rich, distinctive appearance . . . BLUE stands out, assures better display . . . BLUE advertises your product in the store and home . . . BLUE builds profits, steps up repeat sales.

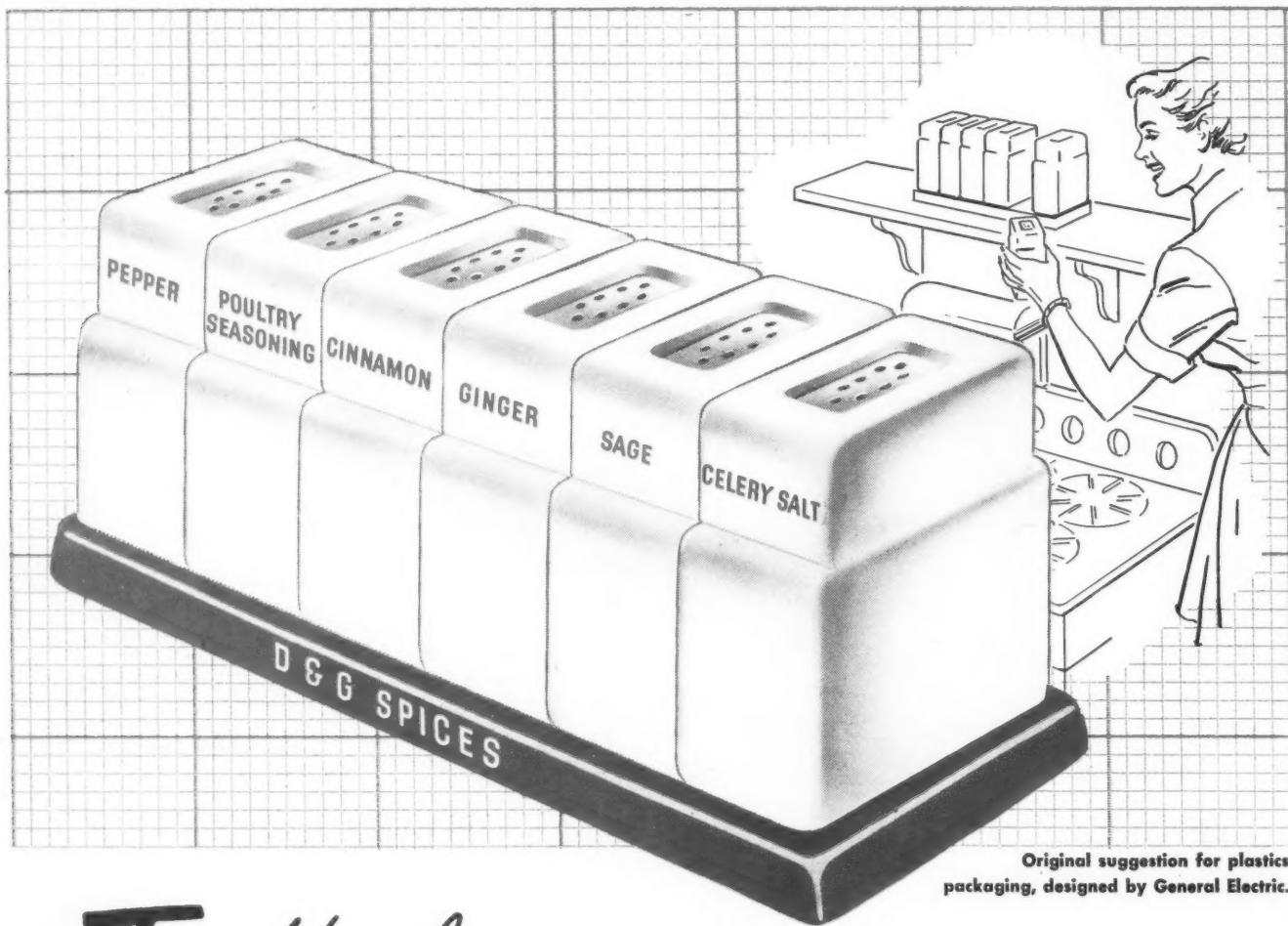
Let us send you samples of appropriate stock designs. Or, let our design experts create a special bottle or jar for your exclusive use. Write today to Maryland Glass Corporation, Baltimore 30, Maryland.

**PACK TO
ATTRACT IN**

Maryland Blue

Also available in Crystal Clear Glass

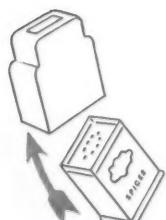
DESIGNED BY GENERAL ELECTRIC AT NO. 1 PLASTICS AVENUE



Original suggestion for plastics packaging, designed by General Electric.

To add sales spice to spices

A G-E PLASTICS PACKAGE DESIGN



Here's a packaging idea designed to bring spice cans out of the cupboard and into a place of honor in the modern kitchen. It's General Electric's novel design for decorative plastics covers for spice cans. These covers, slipped over the cans and set on a plastics tray, become a permanent, attractive fixture of the kitchen. And plastics covers like these can be made to fit only a certain type of container, thus assuring repeat business.

Please note that these covers are *not* a stock item, although this *design* can be yours. It's another example of what General Electric can contribute in the way of

packaging *ideas*. But there are more than just ideas at No. 1 Plastics Avenue. G. E. has a *complete* packaging service that can design, engineer, and produce containers to meet your own needs or specifications. General Electric works with *all types* of plastics materials—selecting the one best suited to your particular packaging requirements.

Why not take advantage of the plastics packaging service offered by one of the world's largest manufacturers of finished plastics products? Whether you're packaging a new product or giving the new look to an old one, it'll pay you to talk to G.E. Just write to Section 2-1, Plastics Division, Chemical Department, General Electric Co., 1 Plastics Avenue, Pittsfield, Mass.

GENERAL ELECTRIC
EVERYTHING IN PLASTICS

CD49-E1

Try it on for size

we'll find the right style for you

In selecting glass containers, as in wearing apparel, size is the first thing to consider—then choose the most becoming style. This method of selection is most practical when you choose H-A glass containers, for these good-looking, efficient jars are available in the most complete lines of sizes and styles.

As in wearing apparel, too, there are those who require the custom made job and for your special product, Hazel-Atlas' designers are at your service.



HAZEL-ATLAS GLASS COMPANY

WHEELING, WEST VIRGINIA



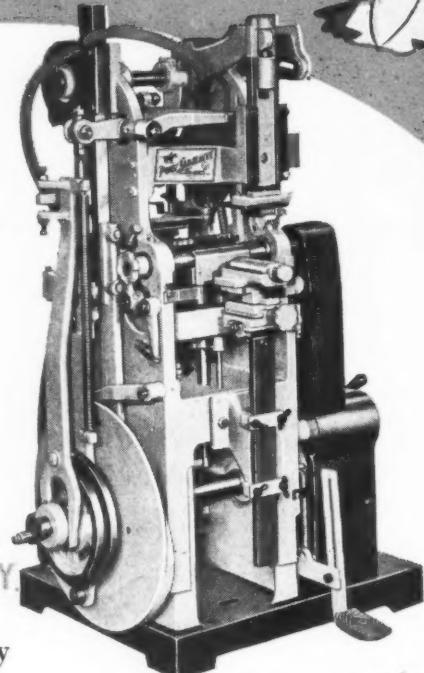
One Girl does the
Work of...



on
**PRECISION
LABELING**

It's *LOGICAL* with the
PONY LABELRITE*

"X" marks the spot
where **ONE** girl and the
Pony Labelrite do **ALL**
the work a labeling
machine should do!



APPLIES EVERY LABEL FAULTLESSLY.

eliminates the work usually done by
girls who "reposition" labels in
checking proper register . . . and *also*
eliminates the need for "wiping" off
excess adhesive.

Why put up with mechanical performance that demands *extra*
cost to do *clean*, SWIFT, precision registry of labels? It
needs but **ONE** unskilled attendant to take care of **ALL** these
factors when you use a Pony Labelrite—because the Labelrite
is **DESIGNED** to eliminate extra costs, extra help, and
"nuisance jobs". Get FACTS. See a Pony Labelrite gallop
through a day's run . . . *that's all the proof you'll need!*



NEW JERSEY MACHINE
Corporation

1510 WILLOW AVE. • HOBOKEN, N. J.

Chicago Office: 325 W. Huron Street

Cincinnati Office: 1701 Carew Tower

Los Angeles Office: 2500 W. 6th St.

**VACUUM STRAIGHT-LINE LABEL
DELIVERY**

makes perfect register assured.

**TWIN-ROLLER, MICRO-GLUE
ADJUSTMENT**

prevents excess glue.

FULL SURFACE GLUING

eliminates blisters and loose edges.



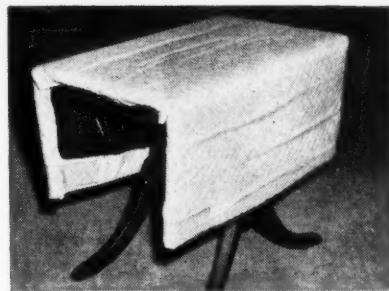
Eli Lilly uses 58 Pony
Labelrites which are each
operated at a minimum of
55 containers per minute.

504 *Reg. U. S. Pat. Off.

MODERN PACKAGING



Cloud-soft KIMPAK shields this handsome dispenser from damage during shipment. Photo courtesy Temprite Mfg. Co., Inc.



Surface Protection — Drop-leaf table. Photo courtesy Phoenix Chair Company.



Flotation Packaging — Mercury bottle. Photo courtesy F. W. Berk & Company.

Kimpak* Float Packaging

bundles of protection
for every product you pack

Ship confidently and save—thanks to reliable, low-cost KIMPAK* creped wadding. A versatile, efficient cushioning material, KIMPAK provides protection in packaging for the smallest, most delicate items to heavy and bulky products. Made in a variety of types, thicknesses and backings to suit your particular needs. You'll find a specification of cushiony KIMPAK to meet every requirement of the Four Basic Methods of Interior Packaging—Sur-

face Protection, Blocking and Bracing, Flotation Packaging and Absorbent Packaging.

Soft, flexible and feather-light—KIMPAK adds little weight or bulk to shipments. It is made either liquid absorbent or liquid repellent. Highly resilient, it effectively withstands shock and vibration. Spotlessly clean, KIMPAK improves the appearance of any package. No wonder so many fine products are wrapped for market with KIMPAK.

Kimpak

REG. U. S. PAT. OFF. & FOREIGN COUNTRIES

CREPED WADDING



* T. M. Reg. U. S. & Can. Pat. Off.

JANUARY 1949

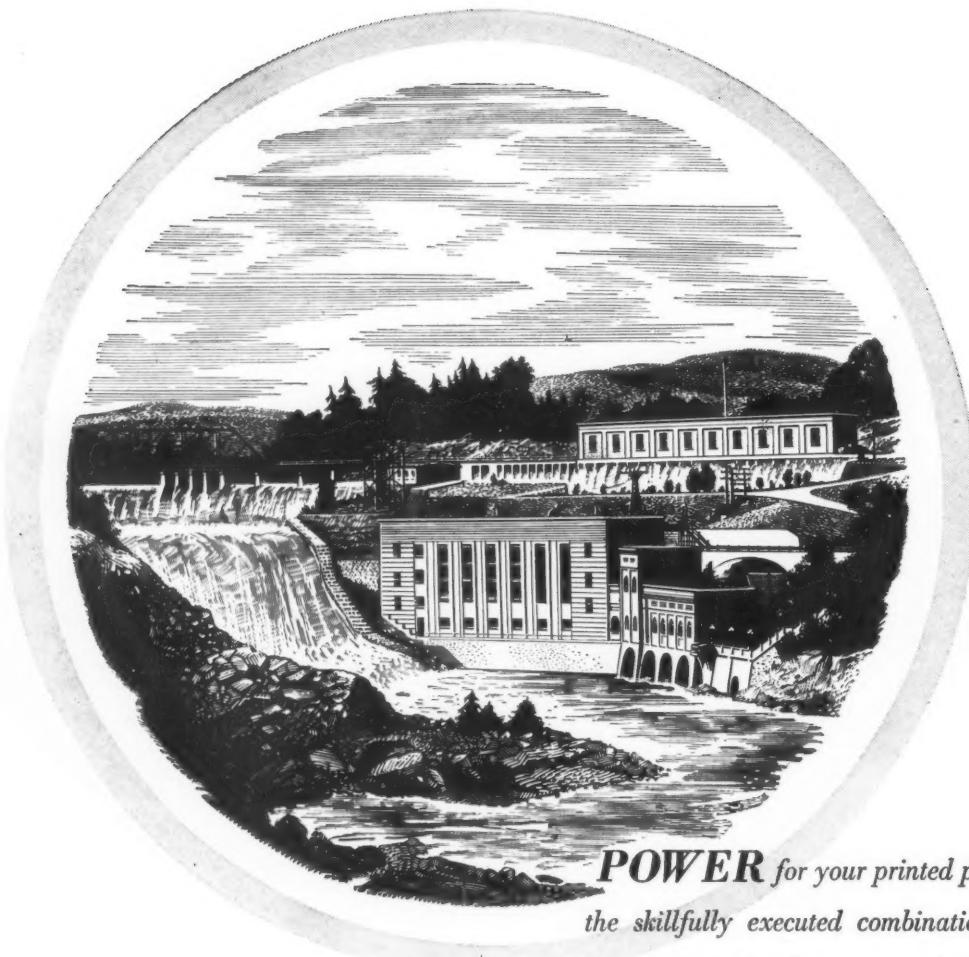
Name _____

Firm _____

Type of Business _____

Address _____

City, Zone, State _____



POWER for your printed promotions stems from the skillfully executed combination of message, art and printing. To the success of this combination, a foundation of first-quality paper is essential. For this reason, wise buyers of printing insure increased interest, more compelling attention, by specifying one of the many outstanding grades of Oxford papers.

Illustrated above is the plant of the Rumford Falls Power Company, a wholly-owned subsidiary of Oxford Paper Company

DISTRIBUTORS IN 48 KEY CITIES,
COAST TO COAST



OXFORD PAPERS
230 Park Avenue, New York 17, N. Y.

Alcoa's "do-you-know" series for package buyers

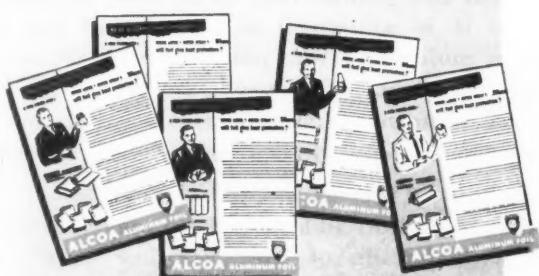
A FOOD PACKER ASKS:

"How does foil preserve food flavors?"



QUESTION:

"Will Alcoa Foil operate on high-speed packaging machines?"



ANSWER: Loss of flavor in foods is usually caused by dehydration and oxidation. A midwestern research organization reports: "Numerous tests in our laboratory indicate that aluminum foil offers the best apparent barrier to oxygen and moisture vapor of all wrapping materials on the market at the present time." Alcoa Foil protects against the loss or absorption of gas, grease, and resists vermin infestation.

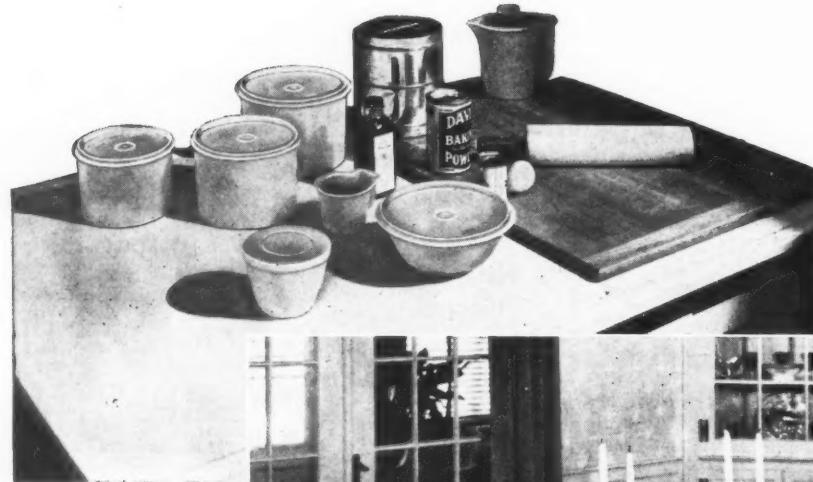
ANSWER: Alcoa Foil may be used with almost all types of modern high-speed packaging equipment either plain, in combination with supporting sheets, or in package structures such as wraps, bags, cartons, and rigid containers.

Write for complete "do-you-know" series

It will pay you to find out the answers to questions asked by other package buyers about Alcoa Aluminum Foil. Send for free "do-you-know" series, today. Address: **ALUMINUM COMPANY OF AMERICA, 2129 Gulf Bldg., Pittsburgh 19, Pa.**



ALCOA ALUMINUM FOIL
THE QUALITY PACKAGING MATERIAL FOR QUALITY PRODUCTS



Tupperware

Award Winner—Housewares Classification—as used in fine old American Home where gracious living and sturdiness meet in the "American manner"

Canister Sets, Refrigerator Bowls, Cups, Saucers, Pitcher, Creamer, Sugar Bowl Wonder Bowl with cover and Tumblers are

Tupperware

by
Tupper Corporation

Silver, napery, cutlery, glassware, etc., by others



The Penalty of Leadership

Once, quite a long time ago, an advertisement was written about a very fine automobile. This car was just about the finest of its time . . . it still is, in the consideration of lots of folks.

The caption of that advertisement was the same as this, and among the thoughts expressed was that whenever an individual, an institution or a product has attained such a position, they, or it are in constant competition with themselves.

A position such as this immediately establishes a code of behavior, less than which it is impossible to contemplate. All, occupying this place are bound by this code to become stewards—guardians of sharply defined ideals and principles. Intimate association is possible only with others of comparable stature.

It's no easy position, this one of Leadership. There are temptations . . . constant and insidious, against which there must be unceasing watchfulness and which must be courageously met and sternly and decisively rebuked.

And so, because the story of the ideals that produced a great car and a great organization so closely parallels our own, we liken ourselves, our product and our anticipated future activities to it.

For, when TUPPERWARE is designated as the winner of the only award possible to bestow in its group classification . . . one from among thousands, then are we indeed worthy to put on the mantle of a Leader.

And that this mantle may never lose its significance, it is a natural sequence that we, as custom molders of fine plastics may only serve other comparably fine products, secure in the mutual assurance that they and we will retain our respective positions through such association.

A communication addressed here may very well initiate a joining of the "winning ways" of Tupper with your own excellent product, to the everlasting credit of both.

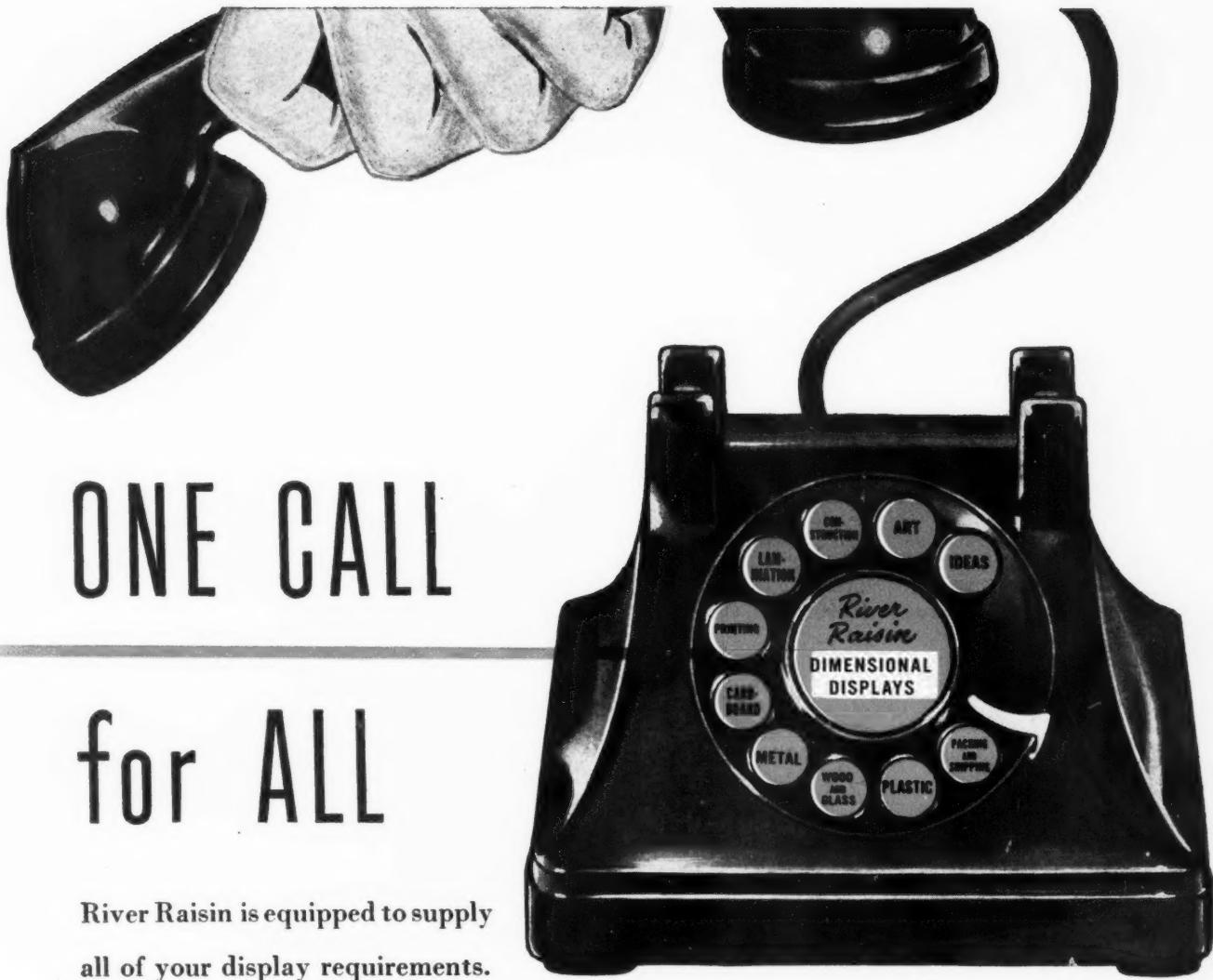


TUPPER CORPORATION

FACTORIES: Farnumsville, Mass., and Cuero, Texas

ADDRESS ALL COMMUNICATIONS TO: Development Department A, CUERO, TEXAS

New York Show Rooms 225 Fifth Ave.



ONE CALL for ALL

River Raisin is equipped to supply all of your display requirements.

A new and different service . . . as convenient as your telephone. Our Creative Staff supplies the basic idea . . . our Production Experts produce the finished display in our fully equipped Monroe, Michigan plant. You can expect economies because River Raisin is one of the country's largest manufacturers of corrugated and fibre board. The next time you want dimensional displays that produce immediate action call for our *ONE CALL FOR ALL* service.



River Raisin
DIMENSIONAL DISPLAYS

RIVER RAISIN PAPER COMPANY
DISPLAY DIVISION • Monroe, Michigan

CORRUGATED AND SOLID FIBRE SHIPPING CONTAINERS • PACKING MATERIALS • FIBRE BOARDS • CORRUGATING STRAW • SILICATE OF SODA



HOW A *Dodge* CORK SEALS A SECRET FORMULA

Cointreau, that subtly smooth liqueur, is the name associated with good living the world over. The secret formula for this crystalline delight has been guarded by succeeding generations of the Cointreau family.

Protecting it is a wood top cork which is no top secret. This Dodge Closure is made of high grade natural cork and joined to a sturdy wood top. Note the peg and partly perforated cork. This is an important construction feature. Cordials, as you may know, sometimes cause a cork to adhere to the side of a bottle. But the peg in this Dodge Closure strengthens the grip on the cork when uncorking the bottle.

Cointreau is just one of the many big names that benefit from Dodge's knowledge of the fine points of closure design. Dodge not only knows the cork manufacturing business, but also how to apply the know-how to your business. Discuss your needs with us.

Dodge Cork Company, Inc., Lancaster, Pa.



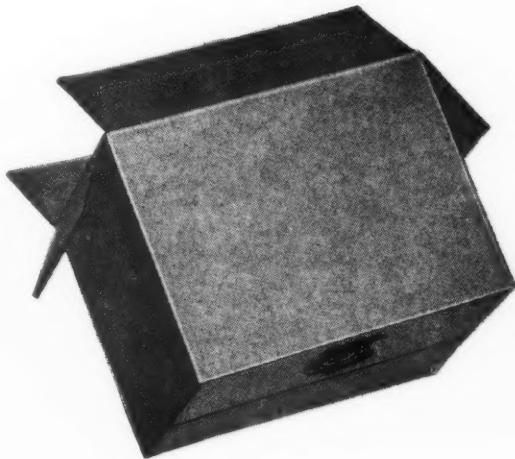
Dodge

CORK CLOSURES

DESIGNED TO GUARD THE INTEGRITY OF THE CONTENTS

The Pedigree is Assurance of Consistent Performance

...In boxes, too!



THE BOSTON TERRIER was bred in Boston about sixty years ago from English Bulldog and white English Terrier stock. This little fellow is exceptionally lively and bright, and truly deserves his title of "American Gentleman."

CONSISTENT Quality
CONSISTENT Service
CONSISTENT Fair Price

THE pedigree of a Union box goes all the way back to the trees in the forest. The Union shield trade-mark on a corrugated container means nothing has been left to chance.

Completely integrated production, under one management, in the largest Kraft pulp-to-container plant in the world is checked and re-checked at every step to maintain consistent quality without variation.

Union containers are backed by 75 years of leadership in paper packaging. Five of the nine largest paper machines in the world and four modern box plants give you boxes when and where you need them.

UNION Corrugated Containers **UNION BAG & Paper Corporation**

Principal Offices: WOOLWORTH BLDG., NEW YORK 7, N. Y.

Corrugated Container Plants: SAVANNAH, GA. • CHICAGO, ILL. • TRENTON, N. J.





Simplicity of construction and design is the secret of THERMALL'S Model No. 12 outstanding performance in the sealing of plastic materials.

Here is a "PACKAGED" electronic heat-sealing unit, only 14" wide, 23" deep and 28" high, capable of making either a single seal 12" long x $\frac{1}{8}$ " wide or two separate seals each 4" long x $\frac{1}{8}$ " wide of either rigid or flexible plastic sheeting materials.

In the THERMALL Model No. 12, high frequency power is generated right where it is needed, at the load.

Interchangeable electrodes are available for sealing plastic folders, envelopes, pouches, billfolds, and all other flat articles, as well as rectangular plastic boxes and covers, sealing one or two corners simultaneously, (special 4 corner machine available) and also cylindrical tubes and containers in a wide range of sizes.

Let THERMALL solve your sealing problems, from the simplest to the most complicated.

For full information on the advantages and uses of the THERMALL Model No. 12, or for sample seals or demonstration, write . . .

W. T. LA ROSE & ASSOCIATES, INC.
TROY, NEW YORK, U.S.A.

Wistful Magic



Magnificent
color printing

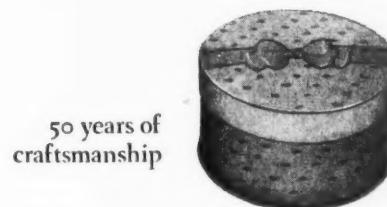


...and a touch of delicate splendor are imparted through the elegant craftsmanship behind Rowell containers.

This artistic achievement adds subtle persuasion to the purchase of cosmetics for face and dusting powders and helps send them on to their heavenly missions.

E.N. Rowell Co. Inc.
Manufacturers of Fine Paper Boxes

BATAVIA, N.Y.

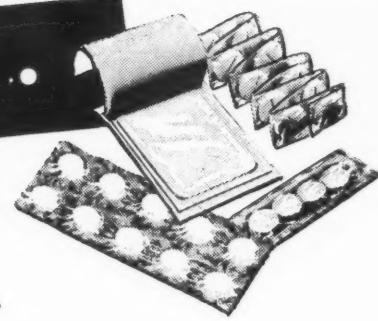


50 years of
craftsmanship



Boxes for
pharmaceuticals

try these for "Size" . . .



From these four basic types of unit packaging can be developed a limitless number of outstanding packages for every use, in any desired capacity, using whatever packaging material is best suited to your product. In every case you have the economy, convenience, attractiveness and protection which is approached in no other package — plus our contract packaging service which relieves you of endless detail and assumes full responsibility for your packaging problems.

Then Carefully Consider the Endless Adaptations of

*Sanitape - Sealtite Packaging

SAMPLING PACKAGES



STANDARD SALE PACKAGES



1001 UNIQUE AND OUTSTANDING PACKAGES FOR PILLS, POWDERS, CREAMS AND LIQUIDS

* Sanitape-Sealtite is a unique method of packaging pills, tablets, capsules, creams and powders, by which each unit or unit dose is sealed in its own air-tight compartment—assuring convenience, protection and maintained efficacy. Packages, methods and machinery fully covered by United States and Foreign Patents, and Patents Pending.

IVERS-LEE COMPANY • 215 CENTRAL AVE., NEWARK, N. J.



CORRUGATED SHIPPING CONTAINERS

another
spoke is
added



Another spoke has been added to our wheel. We have acquired in its entirety the business and plant of the Continental Container Corporation, Brooklyn, New York, manufacturers of corrugated shipping containers.

In operating this plant we pledge the same fidelity and adherence to quality that has governed us in the production of paper goods for the past quarter-century.

The containers we manufacture will be trade marked "SECURITY". We intend to make them justify this name.

WILLIAM W. FITZHUGH INC.

FACTORIES:

49th Street at 2nd Avenue, Brooklyn 32, N. Y.
39th Street at 2nd Avenue, Brooklyn 32, N. Y.

GENERAL SALES OFFICE:

424 Madison Ave., New York 17, N. Y.
Tel: PLaza 9-3100

FOLDING CARTONS • LABELS • SET-UP BOXES • DISPLAY CONTAINERS • PAPER SPECIALTIES

For Consumer Size



ECONOMIZE WITH

Bemis Deltaseal Bags

**THE SMART-LOOKING
PACKAGE WITH
SALES APPEAL**

Deltaseal Reg. U. S. Pat. Off.

Many products such as sugar, flour, rice, salt, beans, corn meal and cereals are packed in Deltaseal Bags with savings in packaging costs that will amaze you.

Your brand will be rich and colorful on the excellent printing surface of Deltaseal Bags.

Deltaseal Bags and the Deltaseal Packaging System permit major operating economies in your plant. Your Bemis representative will give you all the details.

Deltaseal Bags have the handy pouring spout and are available in sizes from 2 lbs. to 25 lbs.

BEMIS



BEMIS BRO. BAG CO.

Baltimore • Boise • Boston • Brooklyn • Buffalo • Chicago
Charlotte • Cleveland • Denver • Detroit • East Pepperell
Houston • Indianapolis • Jacksonville, Fla. • Kansas City
Louisville • Los Angeles • Memphis • Minneapolis
Mobile • New Orleans • New York City • Oklahoma City
Norfolk • Omaha • Orlando • Peoria • Phoenix • Salina
Pittsburgh • St. Louis • Seattle • St. Helens, Ore. • Wichita
Salt Lake City • San Francisco • Wilmington, Calif.



UNIFORM QUALITY



Heminway boxes, canisters and round containers cut your costs two ways:

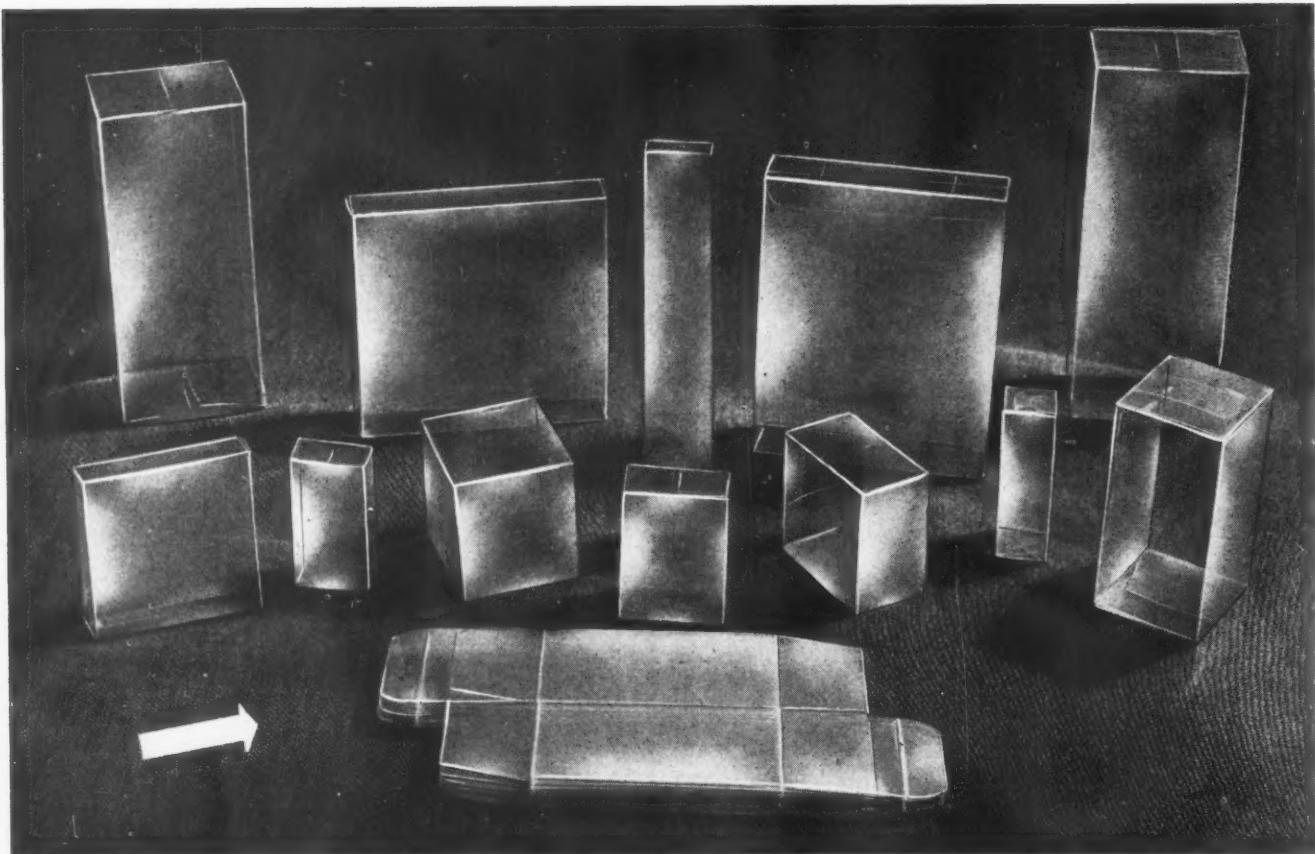
1. Long runs on efficient, automatic machinery give you price advantage and **UNIFORM QUALITY**.
2. Loading costs are cut because each box is identical, assuring uninterrupted flow on your production lines.

Go All The Way with Heminway, From Original Design to Finished Package.

HEMINWAY CORPORATION • WATERBURY 86, CONN.

NEW YORK SALES OFFICE: 30 ROCKEFELLER PLAZA, NEW YORK, N. Y.

MANUFACTURERS OF ROUND BOXES • SET-UP BOXES • PAPER CONTAINERS • NOVELTY BOXES • DRAWN PAPER PRODUCTS
PRINTERS OF CATALOGS • INDUSTRIAL PUBLICATIONS • DIRECT MAIL ADVERTISING



The Big Little Difference

that makes Plastafol* Cartons unlike any others you can buy anywhere

• Why do Plastafol Cartons cost less in small sizes than any other rigid plastic cartons?

Why do they ship and store in less space, at less cost, than any other comparable cartons?

Why can you do packaging jobs with them that can't be done with any other cartons?

Simply because Plastafol Cartons are the ONLY plastic cartons that FOLD FLAT . . . that bend without cracking.

This means they can be mass produced by us for a price that will appeal to you. It means they come to you conveniently packed, 50 or so to the vertical inch . . . each one a single strong piece of window-clear, top-grade plastic, ready to be set up in seconds. Check up on Plastafol Cartons today!

*Trademark. The Plastafol carton is protected by present and pending patents.

✓ Not acetate, Plastafol Cartons are made from a superior, specially developed plastic with foldable, non-cracking qualities.

✓ Proved in use, Plastafol Cartons are already used in packaging everything from cosmetics to photographic supplies.

✓ Variety of designs. Ends may be tucked, glued—or locked for extra package security. Available in large runs.

Write or phone for information, technical help, ideas and prices!

Troth • Bright • Page
INCORPORATED

Paoli, Pennsylvania.

Phone Paoli 1846

MODERN PACKAGING

Packaging Materials Cost Slashed

Acme-Morrison Silverstitchers helped make savings of 600% in cost of packaging materials—with increased production in 30% less time



ONE OF THE MACHINES THAT DID IT! An Acme-Morrison Silverstitcher on the job, cutting costs for this fabricator of aluminum.

Excellent results were obtained when B & T Metals Company, Columbus, Ohio, installed Silverstitchers to help package buffed and polished aluminum extruded shapes.

Here are the outstanding facts from this actual case study:

- 1 **Materials saving—600%. Cost of staples cut 35 cents per thousand.**
- 2 **Time saving—30%.**
- 3 **Increased production because of ease of operation, greater efficiency, and less maintenance with Acme-Morrison Silverstitchers.**

4 Stronger, better-quality packaging for improved handling, better "arrival condition," greater customer satisfaction.

An Acme Shipping Specialist helped get these results. Acme is ready and willing to work with you on better, more economical packaging for your product in corrugated, solid fibre or special containers. Call the district office nearest you, or mail the coupon for more information.

STITCHING WIRE DIVISION
ACME STEEL COMPANY
NEW YORK 17 ATLANTA CHICAGO 8 LOS ANGELES 11

ACME & MORRISON
Silverstitchers
REG. U. S. PAT. OFF.

AND SILVERSTITCH BOX-STITCHING WIRE

Acme Steel Company, Dept. MP-19
2838 Archer Avenue, Chicago 8, Illinois

Gentlemen: Please send me your free booklet describing Acme Silverstitchers.

Name.....

Company.....

Address.....

City..... Zone..... State.....



TAKE ROASTED COFFEE, for example.

In a few days—if it isn't well-protected—air and moisture steal away its flavor, make it rancid and unpleasant.

Thomas M. Royal's Flav-o-tainer® bag gives coffee roasters, and those with similar problems, *vacuum-packed freshness at paper-bag cost!* Flav-o-tainer offers every space- and money-saving advantage of a paper bag. Packers who have adopted it report sales increases as high as 700 percent!

Outstanding feature of Flav-o-tainer is its welded inner lining of air-tight, moisture-resistant PLIOFILM* or other material that keeps the contents *fresh*. The outer, paper wrapping provides ample scope for design and color that

move merchandise off dealers' shelves.

Flav-o-tainer is typical of Royal ingenuity in producing packages that both protect and sell. Royal makes "automatic bags" that stand up on retail shelves without support, as well as every variety of specialty bag and wrapper. Royal works with foil, film, Cellophane, and all kinds of paper—including coated, laminated, and heat-sealing. Royal prints by letterpress, rotogravure, and the economical Den-satone process. You are welcome to use the services of Royal's own design and engraving departments.

What are *your* packaging requirements? Royal can meet them—with high quality at low cost. Write, without obligation.

*T.M. The Goodyear T. & R. Co.

*Printed and plain bags of every description for packaged products
...from foil, film, and all kinds of paper.*

THOMAS M. ROYAL & COMPANY
5800 NORTH 7th STREET • PHILADELPHIA 20, PA.
Offices in Principal Cities

Crown Looks Forward with New Inventions

NEW PRODUCTS MEAN NEW BUSINESS



Whipped Cream under pressure



Lacquers sprayed direct from can



Deodorizers and Insecticides

CROWN'S AMAZING NEW PROPULSION CAN CREATES NEW PRODUCTS AND PROFITS FOR MANUFACTURERS

To succeed against competition, New Products, New Ideas, New Things to Sell, are vitally important. Above are ways in which some Manufacturers are *keeping in advance of competition* with Crown's new one-piece cone-topped Propulsion Can. Now various Products come out automatically under gas pressure as shown.

So easy to use—just "a touch of the thumb" is enough. Perhaps you already have a Product ideally suited to such a Can, or are considering a New Idea. If so, ask to have a Crown Sales Representative call. And remember that the no-side-seam, no-top-seam Crown Can is ideal for pressure use.

CROWN CAN

One of America's Largest Can Manufacturers

PLANTS AT PHILADELPHIA, BALTIMORE, CHICAGO, ST. LOUIS, HOUSTON, ORLANDO • DIVISION OF THE CROWN CORK & SEAL COMPANY

There are
2 SOUND REASONS
 why you should let
Sefton
 solve your packaging problems!

SHAPES

1 *Sefton is toolled for your job!*

2 *Sefton's String-Opening Can is a star selling aid...*

SIZES

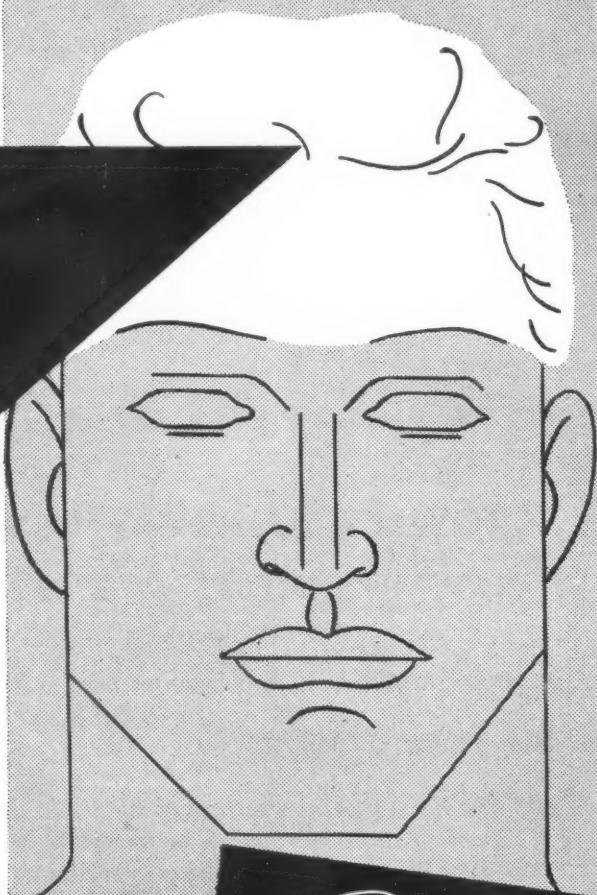
CLOSURES

ALL STANDARD OPENINGS AND RECLOSURES

Spiral and Convolute
 Paper and Metal Ends
 Round and
 Irregular Shapes
 Cans, Tubes
 and Heavy Cores



...and then consider the many advantages of Sefton's string-opening can...it's factory-sealed, tamper-proof, is easy to open and close again. Depend upon Sefton...for perfect packages! Write or call today!



Sefton
FIBRE CAN
COMPANY
 ST. LOUIS DIVISION OF CONTAINER CORP. OF AMERICA NEW ORLEANS

DISTRICT OFFICES: • Los Angeles • Salt Lake City • Denver • Dallas • Chicago • Cincinnati • New Orleans • Boston • Detroit • New York • St. Paul

Cleveland • Memphis • Nashville • Seattle • Portland

What can YOU gain from packaging with plastics?

From silverware to spark plugs to belt buckles . . . packages made of plastics are spurring sales!

Perhaps you, too, have a product that can be made more attractive and useful with a plastic package . . .

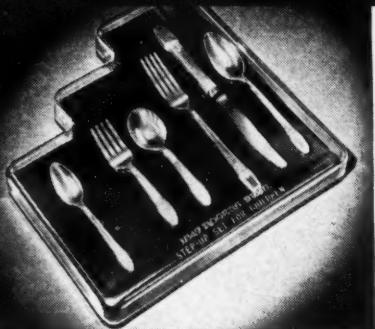
The items shown here are just a few examples of how BAKELITE Plastics fulfill these qualifications in a great variety of packages and displays for well-known merchandise.

But the package has to be good! To be good, it must be well designed. It must be properly made. And it must be produced from the right plastics.

To be sure that you are employing plastics correctly, why not submit your designs to Bakelite Corporation engineers? They can render expert counsel on the most advantageous uses of plastics for packaging. And ask also for Booklet G-12, "Your Guide to Packaging with Plastics." Simply write Department 7.

PERMANENT FILING CASE

• More than just a package, the box for Sawyer's "View Master" three-dimensional color-slide viewer is a lifetime protective case for the instrument, plus a permanent library for your collection of picture reels. Made inexpensively of BAKELITE Styrene Plastic, the box has a smooth, lustrous, colorful finish, along with strength, and a permanently tight cover in contrasting color. *Molder:* Beaman Plastic Products Co.



CLEAR VIEW PACKAGING

• Packaging beauty worthy of a beautiful gift! International Silver Company's new chests for its famous 1847 Roger Bros. Silverplate for children, are molded of exquisitely colored and sparkling clear BAKELITE Styrene Plastic—to last for keeps! Plastics that are fitting guardians for a growing child's treasured silver "Step-Up Set." *Molder:* F. J. Kirk Molding Co.



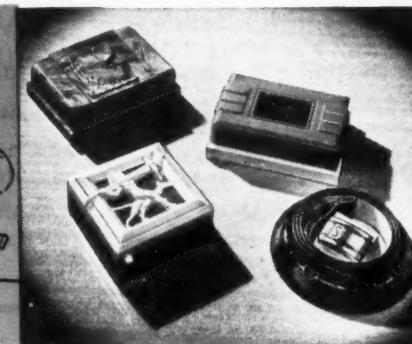
SELF-SERVICE "SALESMAN"

• How often have you "taken your change" in Adams "Chiclets" from one of these self-service counter displays—widely used by the American Chicle Company to speed sales. Their attractive glossy finish is eye-catching. They are easy to keep clean. They're strong, impact-resistant, and are speedily and economically molded from general-purpose BAKELITE Phenolic Plastic. *Molder:* Northern Industrial Chemical Co.



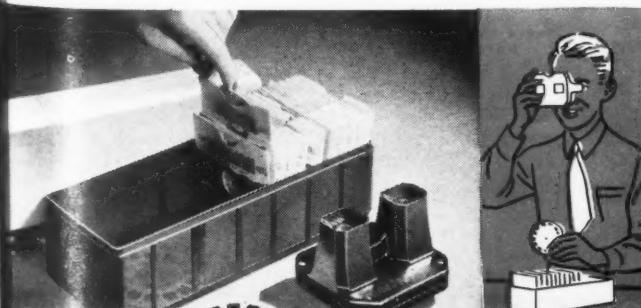
DURABLE DEMONSTRATOR

• To spark sales of Hastings Aero-Type Spark Plugs, Hastings salesmen carry samples in this handy case molded from BAKELITE Phenolic Plastic in attractive maroon finish. It holds a cutaway plug, an unassembled plug, and a finished one. It gives leadership display to a leadership product. It has a permanently rich appearance that defies soiling despite constant use. But its special value lies in its saving in costs over less durable cases formerly used. *Molder:* Industrial Molded Products Co.



DUAL-USE GIFT BOXES

• Hickok employs BAKELITE Plastics to advantage for its dual-use package for belts and buckles. Note the intricate detail of the latticework openings in the covers, and the finely molded decorative effects. The packages serve as handy boxes and ashtrays for a man's dresser after he's put the belts and buckles to work. You'll agree this is excellent merchandising—with plastics! *Molder:* Ontario Plastics Co.



Bakelite
TRADE-MARK
PLASTICS

TRADE
MADE
BAKELITE
CORPORATION

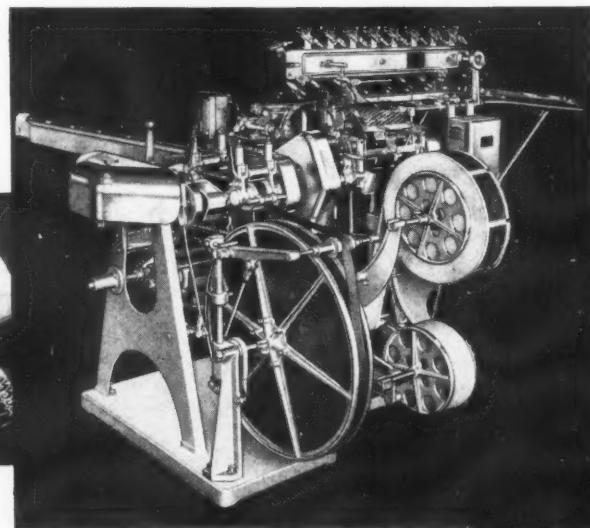
BAKELITE CORPORATION

Unit of Union Carbide and Carbon Corporation **UCC**
30 East 42nd Street, New York 17, N. Y.



PENNY WISE OR PACKAGE POOR?
CUT COSTS WITH LYNCH

WRAP-O-MATIC

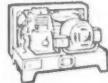


You stop pouring profits into your packaging when a high-speed Lynch WRAP-O-MATIC takes over! Model RA illustrated, turns out neat, trim packages at high speeds. And talk about savings! In many instances the installation of a Lynch WRAP-O-MATIC has saved as much as 75% labor costs and 35% materials against hand wrapping, besides giving an improved appearance to the product and package.

Don't let your package be a profit "bleeder". Investigate how you can reduce labor and packaging costs by writing for a folder showing the complete Lynch WRAP-O-MATIC line.



PAR AIR
COMPRESSORS



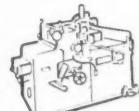
PAR
REFRIGERATION
COMPRESSORS



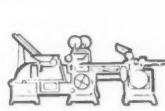
WRAP-O-MATIC
CANDY & COOKIE
WRAPPING
MACHINES

LYNCH
CORPORATION

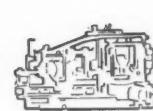
PACKAGE MACHINERY DIVISION
TOLEDO 1, OHIO U.S.A.



MORPAC
PAPER PACKAGING
MACHINES



MORPAC
BUTTER & OLEO
CARTONING
MACHINES



GLASS FORMING
MACHINES



Be penny wise and pound wise —with St. Regis* Multiwalls?

This modern, economical method of packaging belies that part of the old proverb which says "pound foolish." For St. Regis Multiwalls are wise on all counts. Penny wise because they protect every pound, every ounce, of the product . . . and, by emptying clean, deliver the *complete contents*.

Specification kraft paper when converted into multiwall bags is not only the most economical packaging material. It also lends itself to the greatest variety of uses. Over 400 commodities, in an amazingly wide range, are now packed in multiwall paper bags!

New products join the list daily. In the St. Regis laboratories, constant experimentation is going on. Have you a product you'd like tested for packaging in paper? Ask your nearest St. Regis sales representative for information. He will tell you, too, how a complete St. Regis Packaging System (Packers plus Bags) can cut packaging costs. Now, with the highest break-even point in history, *this is important service for you*.

SALES SUBSIDIARY OF  ST. REGIS PAPER COMPANY
ST. REGIS SALES CORPORATION
230 PARK AVENUE • NEW YORK 17, N.Y.

NEW YORK • CHICAGO • BALTIMORE • SAN FRANCISCO • ALLENTOWN • OFFICES IN PRINCIPAL CITIES
IN CANADA: ST. REGIS PAPER CO. (CAN.) LTD., MONTREAL • HAMILTON • VANCOUVER

ST. REGIS—WORLD'S LARGEST MANUFACTURER OF MULTIWALL PAPER BAGS

*Reg. U. S. Pat. Off.

ST. REGIS
BAG
FILLING
MACHINES



MULTIWALL



PAPER
VALVE
BAGS

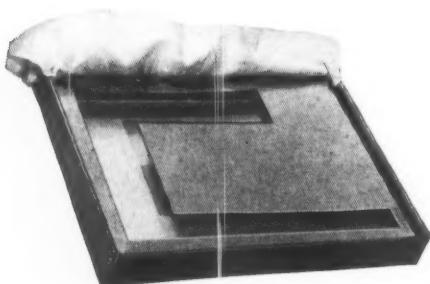
BETTER
PACKAGING
AT LOWER
COST

ST. REGIS PACKAGING SYSTEMS

NEW BOX PAYS OWN WAY



... Saving in labor and shipping over former box
practically covers cost of new one



Picture shows inner construction of Pilling boxes, with flannel layer and slotted cardboard platform shaped to fit the instrument. A man can drop one in place as fast as he can pick it up.

Before we re-designed the boxes, Pilling's surgical instruments were packed in wooden cases, anchored in place with wooden pegs, protected with shredded paper padding. Some of the instruments took nearly an hour to pack.

In the new box, the instrument is merely dropped into a slot built in the cardboard platform, conforming to the shape of the instrument. With the padded cover on, the instrument rides to destination in complete security.

While we cannot promise to every box user new boxes at practically no cost, Miller-designed boxes will be right for the job—tailor-made to meet the special conditions each product dictates. We are at your service, anytime, without obligation.

CREATORS AND MANUFACTURERS OF SET-UP

WALTER P. MILLER COMPANY, Inc.
452 YORK AVENUE • PHILADELPHIA 23, PA.

A CUSTOM BOXING SERVICE

To meet your Packaging Problems

Made by the Million
FOR PRODUCTS THAT
Sell by the Million



* TULOX TRANSPARENT CONTAINERS

Yes, millions of consumers have already voiced their approval of TULOX Containers through increased purchases of TULOX-packaged products. They like the clear, sparkling transparency . . . the assurance of clean, fresh merchandise . . . the handy re-use value . . . the promise of finer quality.

You, as a manufacturer, will also like TULOX Containers . . . the rigid, seamless construction . . . the non-shatterable material . . . the feather-light weight . . . the ease of handling . . . the low price.



There are 3 basic types to choose from—all available in a wide range of sizes.

TYPE OF CONTAINER	DIAMETER	LENGTH
Screw-Cap (sealed 1 end)	3/4 to 1"	5 1/2 to 7 1/2"
Slip-on Cap (sealed 1 end)	5/8 to 1 1/2"	5 1/2 to 8"
Slip-on Caps both ends	5/8 to 2"	On request

If your product comes within these limitations it will pay you to know more about TULOX Containers.

TULOX SLIP-ON CLOSURES—COLORED OR CLEAR

TULOX Slip-on Closures are made to special order only in a wide range of standard sizes. Clear-transparent, or any desired color can be supplied. Tops can be imprinted in GOLD or SILVER at slight additional cost.

*Trade Mark registered U. S. Patent Office. TULOX Containers are manufactured under U. S. Patents No. 2,377,908, No. 2,383,520 and No. 2,423,260. Other patents pending.

EXTRUDED PLASTICS, INC.
NEW CANAAN AVENUE • NORWALK, CONNECTICUT



4 out of 6 buy Riegel

Four of the six
largest sugar refiners
buy Riegel Papers
regularly

Among sugar refiners, and in many other fields, you will find that most of the sales leaders are regular Riegel customers. They buy from us simply because they know we can make packaging and industrial papers that combine technical excellence with economy and production efficiency. Their confidence in Riegel is an important reason why your company—whether large or small—should see if we can also help you. Riegel Paper Corporation, 342 Madison Avenue, New York 17, N. Y.

Riegel Papers

We produce over 600 different packaging, printing, converting and industrial papers. If we don't have what you want, we can probably make it.

Nothing Else is good enough
for
Elsie's Baby



Lumarith* plastic toys and rigid containers by Irwin Corporation, New York. Window Box by Robertson Paper Box Co., Montville, Conn.

When a product is famous . . . attractive . . . or unique, it will sell itself if it can be seen. That's the merchandise-thinking behind these transparent containers for Elsie's baby.

Made of Lumarith transparent film, they . . .

- give full product visibility
- protect against soiling and counter damage
- command attention to any product
- make sales without opening

How about your package . . . is it good enough for your product? Containers of Lumarith transparent film are obtainable in an unlimited variety of sizes, shapes

and styles. For names of manufacturers, write to: Celanese Corporation of America, Plastics Division, Dept. P-1, 180 Madison Avenue, New York 16, N. Y.

LUMARITH* TRANSPARENT FILM

A *Celanese* *

PLASTIC

*Reg. U. S. Pat. Off.



"THE JEWEL BOX" is designed to help sell more plastic coasters and is re-usable as a jewel box for the dresser. Both box and coasters are made of Koppers Polystyrene for the Thomas A. Steeds Company, Cleveland. Molded by Peerless Molded Plastics, Inc., Toledo, Ohio.

boosts sales

"The Jewel Box" of Koppers Polystyrene brings immediate increase in product sales

► "The Jewel Box" does not sell jewels — it sells plastic coasters in larger quantities than ever before.

The idea was originated by the Thomas A. Steeds Co., Cleveland, Ohio, to step up the sales of their plastic coasters. They designed a sparkling jewel box of Koppers Polystyrene, to hold eight colorful polystyrene coasters. They marketed the set in department stores and variety stores.

Response was immediate, for the customer received the coasters *plus* a jewel box she could use on her dresser, and it cost her considerably less than if she bought both box and coasters separately.

A refreshing idea like this gets results. Possibly Koppers can help you with your packaging problems. Our technical staff is ready at all times to help you improve your designs and to choose the right packaging materials for your applications.

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•
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CARTON LINERS

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& CIRCLES

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•
SLICED BACON WRAPPERS

•
FISH FILLET WRAPPERS
& INSERTS

•
CELERY WRAPPERS

•
LINERS FOR MEAT TINS

•
POULTRY WRAPPERS

•
CHEESE WRAPPERS

•
TAMALE WRAPPERS

•
MANY OTHERS

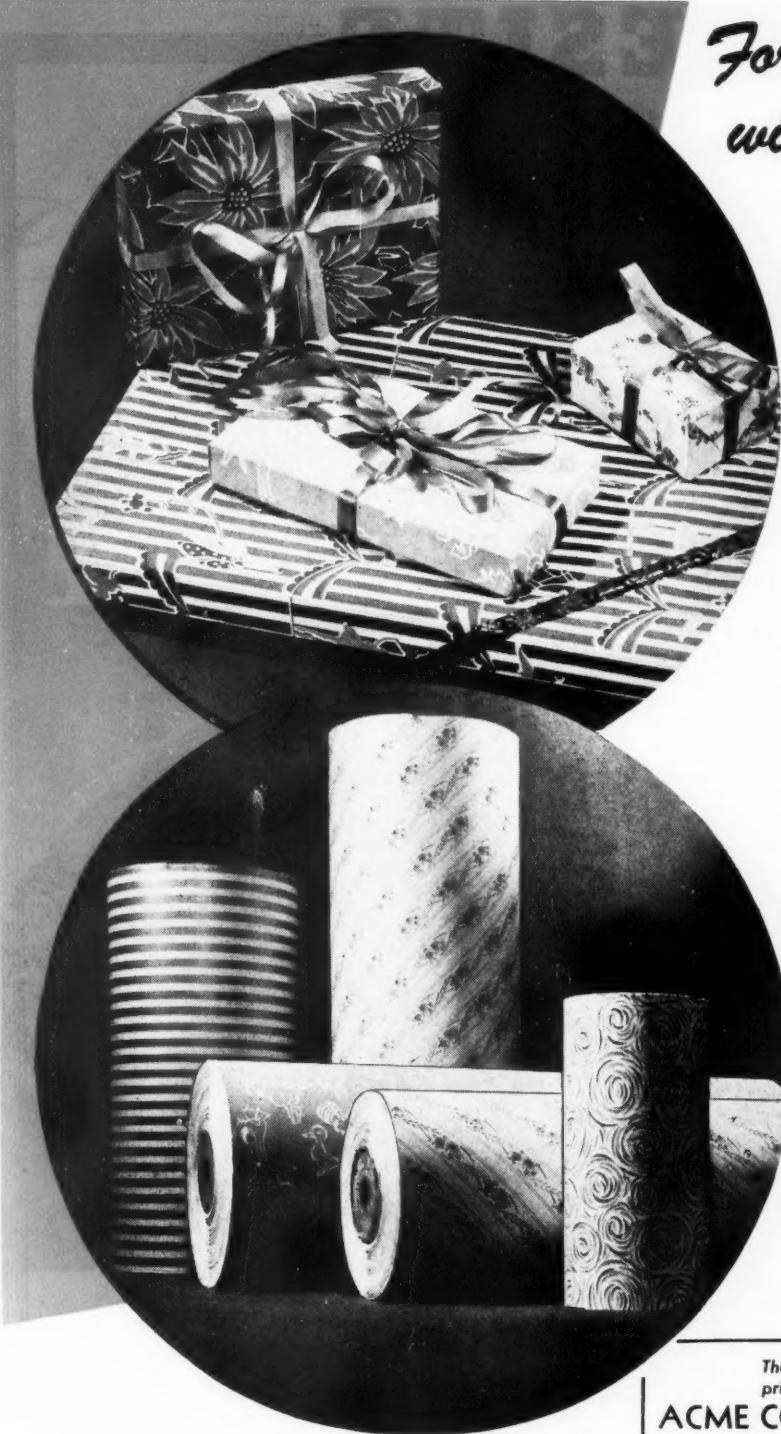


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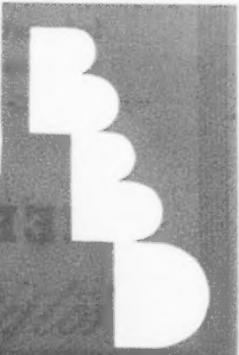
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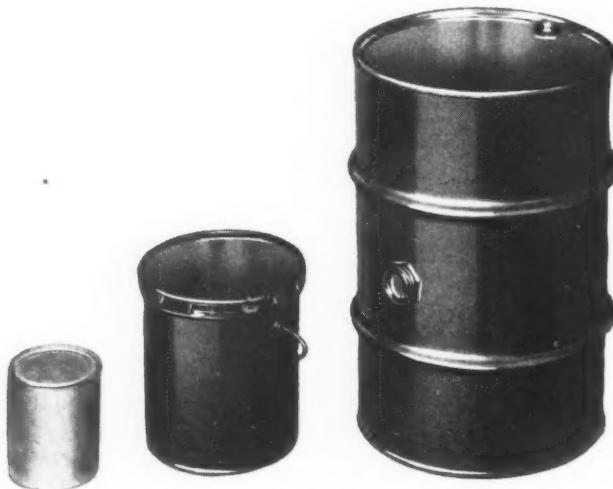
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Container Lining for the Packaging Industry

The millions of Heresite lined steel shipping containers which have been used for transporting such products as phenol, water paints, formaldehyde, glues, aeroplane motor fuels, fatty acids, oils and greases, attest to the value of these linings in protecting contents from contamination and preventing corrosion of the container.

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The roll-coat method of application has been perfected and should be of interest to fabricators of smaller-sized containers. With very few exceptions, roll-coated sheets can be formed and handled in the same manner as tin-plated sheets.

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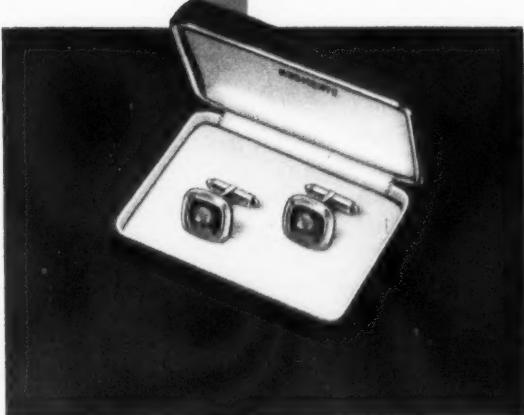
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Pervenac* is Nashua's heat activated dry label paper that is revolutionizing labeling in many diverse applications — from hot radio tubes to wet beer bottles — on metal, film, wood, enamel, glass and paperboard. Write Nashua's Sales Research Department for complete information on Pervenac* (formerly Thermo-Kote) and Imac* (formerly Thermo-Stix).

*Trade Mark

NASHUA GUMMED AND COATED PAPER COMPANY
NASHUA, NEW HAMPSHIRE



Modern packaging



Vol. 22 No. 5 January 1949



WELL-FILLED WAREHOUSES are now generally found in packaging plants and buying is on a normal 30-to-60 day basis.

The outlook for 1949

AMPLE PACKAGING SUPPLIES AND LEVELING PRICES BRIGHTEN THE PICTURE

FOR NATION FACING ANOTHER BIG YEAR OF CONSUMER-GOODS PRODUCTION

Among those who are responsible for the purchasing of packaging materials, the big question no longer is, "How much can I get?" but rather, "How much *should* I buy?" That is the principal significant conclusion to be drawn from MODERN PACKAGING'S year-end survey of the packaging supply situation.

With virtually all packaging materials except metal containers now in ample supply and with business activity and prices generally at a "hesitation" point from which they might swing either way, purchasing agents are principally concerned about wise inventory practices. Availability, generally speaking, has ceased to

be a question in packagers' forward planning for 1949.

Information as to current buying practices by the majority of package users in the various categories is, therefore, of the greatest importance for 1949 and it is with that type of information that this report principally deals. For much of the data we are indebted to Lee R. Forker, chairman of the Container Committee of the National Assn. of Purchasing Agents.

But first—a look at some of the broader aspects of the national picture.

We enter 1949 with high hopes for another year of peak industrial productivity; it is safe to say that

suppliers of packaging material will be ready with adequate facilities to package the national output properly. Container manufacturers have added new plants and there is ample capacity for all types of paper, steel, glass, wood and textile containers. It is even possible that steel containers—in restricted supply for all of 1948—may be sufficient to fill all of 1949 demands; much will depend on the Government's program of national stock-piling of tin and other strategic materials.

The transportation situation is much better. A year ago there was every prospect of a serious shortage of freight cars for the movement of packaging materials and packaged products due to the heavy traffic load of a domestic economy that was "catching up," as well as the call for freight cars for shipments to Western Europe under the Marshall Plan. All during the war years and up to November, 1947, transportation facilities were lagging behind. During that month, however, it now appears, the tide turned and since then there has been

a steady gain in freight car building. The present rate is between eight and nine thousand cars per month, with an excellent prospect for continued gain.

Piling up of inventories of finished packaged products is noticeable in some fields, including packaged goods. This is bound to take some of the pressure off packaging operations and, in turn, reduce the pressure of packaging-materials buying.

At the recent meeting of the Super Market Institute, more than 45% of members reported that they were carrying higher inventories in tons than a year ago; another 25% carried the same inventories as last year and only about 30% had lower stocks. Some 72% of the market operators said they currently had more dollars invested in inventory than a year ago. It was the consensus of members attending that there would be a halt to food price rises in the next six months, necessitating close attention to inventories.

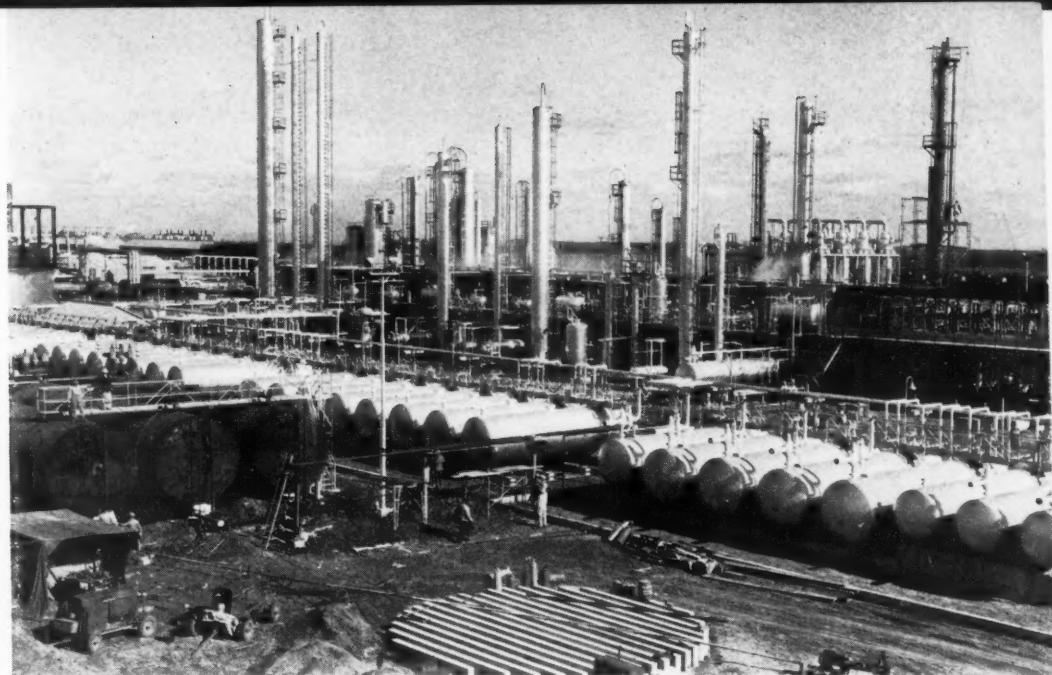
According to the latest Department of Commerce

CURRENT INVENTORY PRACTICE AND DELIVERY TIMES FOR PACKAGE SUPPLIES*

ITEM	INVENTORY	DELIVERY	SPECIAL NOTES
FOLDING BOXES	8 weeks	4 to 6 weeks	
SET-UP BOXES	8 weeks	4 to 5 weeks	
PAPER SHIPPING BAGS	4 weeks	4 weeks	
TEXTILE BAGS	30 days	5 weeks	Longer delivery for special constructions.
UNIT BAGS	60 days	5 weeks	
LABELS (bottles)	60 days	30 days	Longer delivery if plates must be made.
LABELS (cans)	6 to 8 weeks	4 to 5 weeks	Longer delivery if plates must be made.
METAL CANS	60 days	60 days	Scheduled deliveries advisable.
COMPOSITE CANS	3 months	6 weeks	Scheduled deliveries advisable.
COLLAPSIBLE TUBES	8 weeks	7 to 8 weeks	
GLASS CONTAINERS	30 to 60 days	30 days	Longer delivery if molds must be made. Scheduled deliveries suggested
METAL CLOSURES	60 days	7 weeks	Longer delivery if dies must be made.
PLASTIC CLOSURES	60 days	7 weeks	Longer delivery if molds must be made.
CELLOPHANE	60 days	30 days	
PLASTIC FILMS	6 to 7 weeks	30 days	
METAL FOILS	5 weeks	6 weeks	
CORRUGATED CONTAINERS	30 days	2 to 3 weeks	Scheduled deliveries advisable.
STEEL DRUMS		7 weeks	Scheduled deliveries strongly advised.
FIBRE DRUMS	3 to 4 weeks	1 to 2 weeks	Scheduled deliveries advisable.
WOODEN SHIPPING BOXES	1 to 3 weeks	3 weeks	
ADHESIVES	30 days	2 weeks	Avoid winter shipments
STEEL STRAPPING	7 weeks	4 weeks	On contract basis

*Based on information supplied by the National Assn. of Purchasing Agents and independent surveys of suppliers and users.

VAST CHEMICAL PLANTS have sprung up on the Texas Gulf Coast, supplying the synthetic chemicals that are so vital to plastics and other packaging materials. Photo shows the Chemcel plant of the Celanese Corp. at Bishop, Tex.



Pulp & Paper Report, the present noticeably lighter demand for paper and paperboard is due largely to the leveling off of national purchasing power and—compared with 1947—the diversion of more of that purchasing power to non-packaged durables like automobiles and homes. With the return of a more normal and competitive market, the pulp and paper industry generally is concentrating on quality and improved services. By and large, according to the Department of Commerce report, the outlook for the paper industry is good.

Significant of the changed situation at this year-end was the Dec. 3 announcement by one of the largest manufacturers of cellulose acetate sheet and films for packaging that, effective Jan. 1, 1949, all allocations on film would be discontinued. Increased production, said the manufacturer, now makes it possible to supply "all the film you need."

The purchasing agents' viewpoint

The National Assn. of Purchasing Agents has long paid particular attention to inventory practices in packaging materials, for there is no better barometer of industrial activity in consumer goods.

Accurate advance estimates of package requirements are now a "must" for every purchasing agent, says the N.A.P.A. These estimates have now been made by most purchasing agents for at least the first six months of 1949 for large volume items, subject to realistic changes to be made monthly, or even weekly, based upon changing conditions.

For the buyer, it is pointed out, cutbacks can be effected quickly, but decreased shipping schedules without advance notice to the manufacturer involve costly shutdowns. If requirements are suddenly increased, buyers find such obstacles as raw material shortages, lack of skilled help and transportation limitations, none of which can be solved without trouble. Certainly, says the N.A.P.A., the present situation

dictates that everyone interested in package procurement know the capacity and limitations factors—especially the degree of flexibility—of his container sources.

The most important concrete problem facing the package buyer today is the question of how much inventory to carry—all things considered.

The accompanying table "Current Inventory Practice" (p. 78) represents the composite opinion and practice of package procurement officials in a wide variety of package-consuming industries. Further information as to 1948 production and the 1949 outlook in the various categories of fabricated packaging supplies is contained in the table headed "Production and Prospects in the Package-Supplying Industries" (p. 83).

Considerations of inventory policy

Turnover rate is the most important factor in estimating ideal inventories. Stocks of containers, by nature, are bulky and costly to handle. Straight-line production is ideal, but is not always possible in packaging. Quantity demand, storage space, availability, speed of filling, handling and costs are some of the items to be considered in establishing minimum inventory ideals.

The hazards of a falling market must be weighed with the danger of a container stockout that may cause a plant shutdown.

The N.A.P.A. recommends that containers and packaging supplies be classified into two groups:

1. *Readily available* (buyer's market, competitive, active sales solicitation, trend toward lower price).
2. *Not readily available* (seller's market, perhaps under contract allocation, scarce, firm or premium priced).

Certainly the inventory policy for Group 1 containers will differ from that employed for Group 2. In December, 1948, with all other factors equal, availability of glass containers was a pertinent factor in establishing lower safe minimum inventories; at the opposite ex-

treme were hard-to-get steel drums, with used drums selling at a premium over new ones.

Wartime inventory controls gave valuable experience and the installation of inventory-control records should be resumed. In most cases prices have distorted inventory comparisons and the N.A.P.A. recommends that all inventory records be kept in units. Turnover of each type of container or packaging material should be checked at least monthly and in some cases even weekly or daily.

The quantity demand factor for inventory estimation involves full cooperation between sales, production and purchasing departments. Seasonal changes, new products to be introduced, changed capacity or trend of consumer preference by size, shape or capacity of container are questions to be considered.

Storage space for containers can be determined on the basis of availability and quantity requirements.

High-speed automatic packaging and conveying equipment will permit handling many containers directly from the inbound box cars through the packager's plant to filled storage or to outbound shipments. In a great many cases, conveyors have paid for themselves quickly in decreasing direct labor handling and have permitted smaller container storage and better turnover.

After the war, with container supply limited, many packagers were forced to increase storage facilities to permit continuity of operations. To use this space to the fullest advantage and with the greatest economy is a real challenge to purchasing men and requires constant attention. Quantity purchasing gives a lower unit cost, especially for lithographed packages or packaging supplies, and standard quantities of purchase

must be considered in relation to available storage space and estimated requirements.

Miscellaneous packaging supplies—such as labels, caps, crowns, adhesives, decalcomanias, etc.—are handled by many buyers on a blanket purchase commitment with predetermined shipping schedules. Based upon space required and storage conditions, stocks on hand might be only one or two weeks' requirements in process or on hand with a split shipping schedule.

Nails, tying wire, steel strapping, twine, etc., have been difficult to schedule, and allotted inventory space and the number of days' requirements to have on hand have been increased by necessity.

For the buyer who must schedule deliveries of containers and shipping supplies for several plants, advance planning is even more complex. Full interchange of all pertinent information with suppliers concerning demand and supply is required. If, perchance, the packaging plants are close geographically, then the storage space and the inventory can be smaller at each plant, since diverting of package shipments is possible. During shortages of containers, stop-over shipments for partial unloading is common, as well as switching of inventories by rail or truck.

It can be assumed, says the N.A.P.A., that packagers in 1949 will stress buying from sources that are reliable and cooperative in keeping shipping schedules, to permit the packager to decrease inventories, save on handling costs and minimize rail box-car demurrage. Having shipping sources near by, to minimize the chance of transportation delays, will be an important factor to the container buyer and especially good service will be paramount in "the buyer's market of 1949," the N.A.P.A. Container Committee concludes.

THE PRODUCTION PICTURE IN MATERIALS AND EQUIPMENT

PAPER. Any vestige of a paper shortage practically disappeared during 1948—as predicted a year ago in these columns. The overall production for the year totaled something like 22 million tons—5% more than in 1947. Supply and demand are now generally in balance and future prospects are excellent. Production for 1949 is expected to be about the same as for the year just passed and prices are expected to stabilize soon.

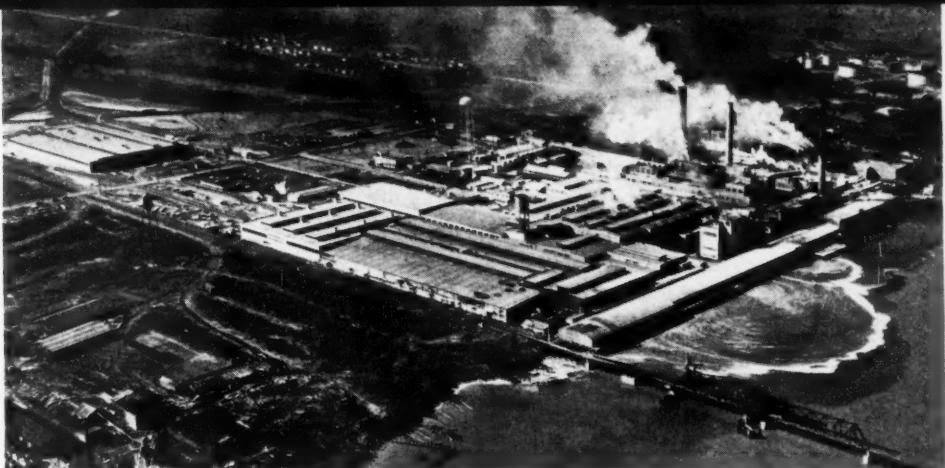
Unbleached kraft paper production made something of a record, reaching 2,175,000 tons, 8½% higher than in 1947. Even at that, the industry was 100,000 tons short of demand for the year, although demand was leveling off at the end of the year. Mills are still suffering from delayed deliveries

RAW MATERIALS

of equipment and they have some transportation difficulties; consequently, deliveries are a little slower than normal. This condition is expected to right itself early in 1949 and the price curve will straighten out.

Paperboard production for 1948 is estimated at 9,500,000 tons, about 2% over 1947. Statisticians in the industry declare that the per capita consumption of paperboard in 1948 was about 132 lbs. per person. Although production costs are expected to continue upward, the industry points with pride to the fact that there have been only minor price increases on some of its products and no increases at all on most types of boxboard. Better availability of raw materials, better performance by labor and better manufacturing are credited. Supply and demand are now in balance, but if all mills operate at full capacity, output will soon exceed consumption unless new uses are developed for

PAPER INDUSTRY has met the demand with huge plant expansions. This Union Bag & Paper Corp. plant at Savannah, Ga., is the largest combined pulp and paper mill and bag and box factory in the world, producing 1,150 tons of products each day.



the utilization of paperboard and paperboard products.

Containerboard production met expectations with a volume of 5,100,000 tons as compared with 4,900,000 tons for 1947. At present, supply is ample, although complaints are heard that the prewar quality has not returned, particularly in the 0.009 field. Existing facilities are adequate to meet a considerable increase, but on the contrary, predictions are for a decline of as much as 5%. Research and promotional organizations in this field are working hard on the development of new uses. If these materialize, the industry will be assured of steady production. At present, users of corrugated and solid fibre containers are buying virtually hand to mouth, with a normal delivery generally of two to three weeks. Price outlook appears firm.

Fancy papers for set-up boxes increased their production 20% over 1947 with prospects for about the same volume in 1949. The industry seems to be in for a period of smooth sailing, as present demand is being met and no problems of raw materials, availability or labor disturbances are in the offing. Deliveries are normal and there seems to be a prospect of a slight upturn in prices.

CELOPHANE. The saturation point for cellophane is very far from being reached. Production figures, for reasons best known to the industry, are a closely guarded secret. The best guess for 1948 is approximately 160,000,000 lbs., a step-up of more than 20% above the 1947 figure—which was likewise a guess. A further increase is in prospect for 1949. Deliveries are kept within a range of from three to six weeks, dependent on seasonal rises. No predictions are available as to 1949 price trends, but declines in some grades would come as no surprise.

STEEL AND TIN. Over-all steel production ties into packaging as it does into many other fields. The increased plant capacity predicted in these columns in January, 1948, materialized substantially as expected, thus providing the following:

- 2,500,000 tons of additional ingot capacity
- 3,000,000 tons of new coke oven capacity
- 3,000,000 tons of new blast furnace capacity
- 3,000,000 tons of added sheet and strip capacity

The 1948 production promises to total about 87,500,000 tons of ingot steel, which is a record peacetime

production. The supply picture for this industry is vastly improved. Scrap supply, which manifested a serious shortage for the first half of the year, no longer is an obstacle. There have been no recent major labor upsets and the strikes in other industries have not paralyzed steel production. Based on continuation of these favorable factors, prospects appear to indicate a continuation of increased production so that 1949 may total over 90,000,000 tons.

But Government is of necessity competing with business for metals. Control Orders M-81 and M-43 covering the use of tin—important running mates of steel for metal can manufacture—have been extended until June 30, 1949, and possibly will be still further extended. However, all requirements for packing food products in metal cans are being taken care of and will continue to be. Use of electrolytic tinplate for cans has mounted from 3.3% in 1942 to the 1947 figure of 48 or 50% and is expected to go still higher as electrolytic facilities increase.

LEAD. Although a 10-week strike in the largest lead field in the country seriously affected lead production, the 1948 output of 1,100,000 short tons equalled that of 1947. The 1949 prospect is for about the same production, but demand still exceeds supply and will continue to do so, with Government stock-piling a further factor to be taken into consideration. This metal definitely promises to remain critically short in 1949, with an outlook for strong prices. Some relief was afforded by the decreased consumption of lead for collapsible tubes, consumption of lead for that purpose in 1948 being about 50% of what it was in 1947. It may be expected, however, that lead for tubes and can solder will continue to be a scarce commodity.

RUBBER. The rubber industry maintains no breakdown records showing specific end uses. However, 1948 estimates indicate that over-all consumption ran slightly below the 1947 figure of 1,122,000 long tons and 1949 may see a slight further decline. Natural rubber, of course, is highly critical. Fortunately, synthetic production is showing a steady flow and for many packaging uses has proved more satisfactory than natural rubber.

CORK. Production of cork for closures in 1948 was approximately 4,000 tons, a decline from 1947. The present supply is ample to meet demands and the same

prospect holds for 1949. Prompt deliveries are being made and will doubtless continue.

ADHESIVES. Complete and accurate figures, broken down to show packaging's share, are not available for this industry. But according to leading producers, production of all types of adhesives (excepting only those devoted to plywood lamination) amounted in 1948 to 320,000,000 lbs. This compares with 335,000,000 lbs. produced in 1947 and 190,000,000 lbs. prewar. Shortages of raw materials no longer worry the industry, with the possible exception of high grade animal glues, which fluctuate with meat packing operations. Most companies have research programs devoted to developing better adhesives for specialized packaging purposes. Prices are expected to remain steady in 1949, subject only to the general inflationary or deflationary developments of the year.

INKS. The ink makers enjoyed a good year, their 1948 production showing a 10% increase over 1947. Supply and demand are in a comfortable relation now and 1949 holds excellent promise with no disturbing factors in sight. This industry expects an increase of packaging requirements and at the same time anticipates a down curve for prices.

PLASTICS. Plastics producers, convinced that their materials ought to have even wider acceptance in the packaging field, continue research and development work to establish definite new uses. For the most part, however, the packaging materials expansion predicted for 1948 failed to come up to expectations. Optimistic predictions made at the beginning of the year were for 1948 over-all production of 540,000,000 lbs. of plastic molding materials. Actually it will be nearer 450,000,000 lbs. One producer attributes the disappointment to the fact that users are apparently buying lower cost packages. To meet this, some producers are turning to the newly developed equipment to manufacture

COMPARATIVE COSTS OF FILMS AND PAPER USED IN PACKAGING*

(Comparative costs at typical prices based on approximately 1-mil films or basis weights as noted)

	Per M sq. in.	Per lb.	Yield ^b
Cellophane, plain	2.1	45	21,500
" coated	2.4	47	19,500
	to	to	
	3.0	59	
Acetate	3.5	75	21,700
Pliofilm	3.8	92	24,000
Polyethylene	2.7	85	30,000
Saran	4.1	67	16,300
28-lb. glassine, lacquered	2.3	36	15,500
31-lb. " waxed	1.7	24	14,000
26-lb. sulphite waxed	1.2	20	16,500
60-lb. kraft paper	1.25	9	7,200

*Data prepared by Charles A. Southwick, Jr., for lecture given before Package Development and Production class at New York University.

^bYield in sq. in. per lb.

extruded sheet material at a considerably lower cost.

Use of phenolics fell below expectations because, as one manufacturer explains, thermosetting materials are being largely superseded by the newer thermoplastics, due to the fact that the latter are available in colors and can also be had in transparent, translucent and opaque forms. Although urea production was considerably ahead of 1947, production was lower than expected because of the scarcity of raw materials during the first half of 1948.

Except for the extruded form of acetate and for polyethylene, no expansion of production facilities is required. Current delivery time for most plastics is four to six weeks, with voluntary allocation programs still in effect in some instances. The price outlook is generally downward.

PACKAGE FORMS

FOLDING PAPER BOXES. Although 1948 production was only 94% of 1947, the figure exceeded expectations with a total of 2,200,000 tons. At present, supply and demand are almost in

balance and the prospect for 1949 is one of ample supply—about the same production as 1948. Deliveries are normal, four or five weeks being required. Price fluctuations will be slight during the coming year, it is expected.

SET-UP BOXES. A gradual leveling off from wartime peaks to prewar normal figures is the expectation in this field. In 1948 they were 10% below 1947 and a further decline is expected for 1949. Deliveries are normal, 30 days being required. Prices are expected to go no higher.

LIQUID-TIGHT PAPER CONTAINERS. This industry estimates that the 1948 production of 325,000,000 units (35% less than 1947) still represents a surplus of production as compared with demand; another 20% decline is anticipated for 1949. Leading customer for these packages is the ice cream industry and that group is so concerned with its 1948 loss of business that it has engaged counsel to learn why. Liquid-tight containers are being shipped immediately on order and price prospects indicate that there will be a decline dependent on paper costs.

LABELS. Supply has definitely caught up with demand and 1948 has shown approximately an 11% decline as compared with 1947. The industry is optimistic about 1949, although hand-to-mouth buying will continue. But placement of orders and production will be steady. Four to five weeks' delivery time is required, which is about normal. Prices for 1949 will fluctuate with labor costs, as all other factors involved are stable.

FIBRE SHIPPING BOXES (CORRUGATED AND SOLID). Production continues to rise although the 1948 figure of 61,600,000,000 sq. ft. did not reach some of the optimistic predictions made in this field last year. The 1948 figure was 1.1% in excess of 1947's. The capacity to

produce fibre boxes has increased appreciably and still further increases are expected by the industry—a challenge to develop new uses and a more extensive demand for the product. In other words, the buyer's market has definitely arrived in corrugated and solid fibre boxes. Prices declined somewhat during 1948, probably as a result of supply catching up with demand, although optimists in the industry attribute price reductions to better manufacturing and the availability of better raw materials. Whether present price levels can be maintained, they say, remains to be seen. Other factors will govern.

Consumers of corrugated and fibreboard boxes report an increase in solicitation for orders on the part of boxmakers. The buyers say they are restricting purchases to those firms who took care of them during the period of shortage, even to the point of giving them an opportunity to meet a price situation. Pricing, however, has been firm and though solicitation for business is strong, price concessions do not appear to be used for bait.

PAPER SHIPPING BAGS. Uses for this bulk container are expanding. The 1948 production was 15% over that of 1947. The present supply is equal to demand,

with prospects for a still greater available supply in 1949. Delivery time required does not exceed 30 days, which is nearly normal.

METAL CANS. During 1948 the manufacture of metal cans consumed 3,250,000 tons of steel, a 10% increase over 1947 and enough for an estimated 29,700,000 cans. This bids fair to be an all-time high, but production is still behind demand. Prospects for catching up are slim because the raw materials are very high on the list of basic items that are critically short.

Tin orders—specifically Schedule 2 of M-81—provide the key to governmental control of metal-can use. As the order reads today, no person shall use more tin than he used in 1947 and the can manufacturers are strictly limited in their consumption. They may, however, extend the tin by changing the thickness of the coating. The manufacturers of cans are required by Government order to supply all food manufacturers, to effect an equitable distribution of available stocks to other users and to make reasonable provision for newcomers in various industries. Use of tin for beer cans is sharply restricted, as is that for pet foods—either to the amount used in 1947 or the amount used in 1941. These restrictions will be (Continued on page 169)

PRODUCTION AND PROSPECTS IN THE PACKAGE-SUPPLYING INDUSTRIES*

	1948 PRODUCTION COMPARED WITH 1947	SUPPLY IN RELATION TO DEMAND	PRODUCTION PROSPECTS FOR 1949	PRICE OUTLOOK
FOLDING BOXES	down 6%	Almost in balance	Ample supply	Not much change
SET-UP BOXES	down 10%	Equal	Slight decline expected	No higher
LIQUID-TIGHT PAPER CONTAINERS	down 35%	Surplus of production	20% decline expected	Materials possibly down; labor possibly up
LABELS	down 11%	In balance	Normal	All factors stable except labor
CORRUGATED AND FIBRE BOXES	up 1.1%	Caught up	Buyer's market expected	Possible increase
PAPER SHIPPING BAGS	up 15%	Equal	Greater available supply	
TEXTILE BAGS	down 16%	Supply ample	Prospects excellent	Probable slight increase
METAL CANS	up 10%	Behind demand	Good—limited by Govt. regulation	
GLASS CONTAINERS	down 12 to 15%	Supply ample	Normal	Depends on labor cost
METAL CLOSURES	up slightly			Depends on labor cost
PLASTIC CLOSURES	down 11%			Depends on labor cost
CROWN CAPS	up 9%			Depends on labor cost
FIBRE CANS AND TUBES	up 5%	Some excess supply	Good—5% up	Will follow materials prices
COLLAPSIBLE TUBES	down 25%	Supply ample	Raw materials still scarce	Up if materials advance
FIBRE DRUMS	up 2 1/2	Supply exceeds demand	Good except for steel shortage	Possibly slightly up
STEEL SHIPPING CONTAINERS		Demand in excess	Slight decline expected	Will follow steel
NAILED WOOD BOXES	down 13%	Supply ample	Slight decline expected	No change, unless labor increases
WIREBOUND BOXES	down 5%	Supply ample	Normal	Possible slight decrease

*Based on suppliers' estimates, association and Government figures.



The hair-curl capsule

THREE MAKERS OF SIMILARLY PACKAGED POWDERS WAGE HOT COMPETITION WITH EACH OTHER—AND ALSO WITH THE LUSH HOME-PERMANENT MARKET

CONVENIENCE of use is a big selling point for hair-curl powders packaged in gelatine capsules. One Minit Curl capsule dropped in a glass of water provides a solution that, combed through the hair, curls "without permanent waving."

Newest entrant in the highly competitive home-hair-wave field is a packaged powder which, in solution, is used to curl hair. The product, manufactured in variations by several firms and already widely distributed, might conceivably dislocate the landoffice business now being enjoyed by the manufacturers of packaged kits for home permanent waves. Both the home permanent and the newer device are, of course, viewed as serious threats by the beauty parlor industry.

The new hair-curling powder, which has been on the market for approximately six months, presents a packaging innovation in this field, in that the substance is packaged in gram-sized gelatine capsules of the type generally used for pharmaceutical products.

Major producers of the encapsulated powder include the Tintz Co., Chicago (Minit Curl); Beauty Factors, Beverly Hills, Calif. (Insta-Curl) and the Magi-Curl Co., Los Angeles (Magi-Curl).

In each case, the package retails for \$1.25. The Chicago firm offers five capsules to the package, while the two California firms issue four each. Each of the three firms makes substantially the same claim for its product: the powder, dissolved in water, forms a solution which is applied when setting the hair; "naturally" wavy hair results. Each claims national distribution through leading drug and department stores.

It is estimated that approximately 20 other cosmetic firms have similar products either on the market or in

preparation. In the Los Angeles area alone, considerable advertising is backing Formula 99, sold for 97 cents through the Thrifty Drug chain, and Curl-Fast, manufactured by the Natone Co. of that city and retailing in department stores for 97 cents.

The Insta-Curl firm, which is making most emphatic claims to having been first with the new product, states that it devoted 10 years to research and laboratory preparation before introducing the powder.

Reasons given for the decision to package the powder in capsules are essentially the same, as given by spokesmen for the various companies. Had the powder been placed on the market in solution form, it would have required bottling. This would have meant higher shipping costs and breakage risks. The capsule is a convenient container, aids in accuracy of measuring, is light weight and a safe and handy purse or travel item.

Both Insta-Curl and Magi-Curl use a standard pharmaceutical capsule and both automatically fill the capsules by means of leased equipment furnished by major pharmaceutical suppliers.

The problem of packaging four or five tiny capsules to look like a \$1.25 value was an interesting challenge. In all instances, the capsules are inserted in die-cut slots and packaged in colorful window-carton units which function both as containers and display pieces.

Both Insta-Curl and Magi-Curl use a shadow-box treatment with folding-box construction. The four capsules rest in die-cut slots in a V-shaped platform strip and the remainder of the package surface is effectively used for sell copy and illustration.

The Insta-Curl package has a deep yellow background panel, bordered by a black frame. The entire package is wrapped automatically in cellophane and heat sealed.

The Magi-Curl package has a background panel of gray and a frame of rose color. Cellophane or acetate is used only for the window area.

Minit Curl uses a tuck-end folding carton with an extension of the back wall which forms an integral display card for each package. The body of the carton has

make its bid

an acetate window extending over part of the top panel and most of the face. The five capsules inside are held in perforations in a die-cut flap of the paperboard insert strip. Directions appear on the back panel. The color scheme is green and brown, with printing in reverse white on the brown section of the carton and in brown on the green areas.

The Insta-Curl case history, as related by E. L. Smith, president of Beauty Factors, began in early August with a mail-order ad in a New York paper, for purposes of testing consumer reaction.

Satisfied with the response, the firm set retail distribution as its next target and the item went on sale at the May Co., Los Angeles, in mid-September. Within two weeks, 500 gross had been sold in the Los Angeles area, according to Mr. Smith. Currently, the company is turning out a million units every three weeks.

Magi-Curl, through its spokesman, Arnold Lewis, claims to have sold $1\frac{1}{2}$ million units in its first 90 days and present volume of manufacture is 50,000 per day.

Initial market testing for Minit Curl was done in the Chicago and New York areas and, like the two California products, it has achieved national distribution.

Extent of the acute competition among the leading manufacturers of the product was first revealed in an ad run by Insta-Curl in Los Angeles papers early in November, asserting that it had originated the idea and stressing that its product was noninjurious.

Climax to the competition was a \$1,200,000 damage and injunction suit filed in Los Angeles Superior Court at the end of November by Beauty Factors against the Magi-Curl manufacturers.

According to a statement released to the press by Beauty Factors when the suit was filed, that firm "claims unfair competition and prior claim to the phrase 'magic curl' . . . and also claims misrepresentation to the trade which has created confusion among the general buying public."

The complaint also charges, according to the manufacturer's statement, that the competitive product imitates theirs "in form, color, package, counter displays and advertising."

Beauty Factors claims that Insta-Curl has registered the highest number of unit sales ever achieved in so short a time by a newcomer to the cosmetic field. Regardless of the outcome of the current bitter competition, the packaging treatment will undoubtedly suggest other uses for light-weight, spill-proof capsules.

CREDITS: **Minit Curl**—Capsules, Kolar Laboratories, Inc., Chicago; cartons, Ace Carton Corp., Chicago. **Magi-Curl**—Cartons, Standard Paper Box Corp., Los Angeles. **Insta-Curl**—Capsules and filling equipment, Parke, Davis & Co., Detroit.



CHALLENGE in packaging is to make four or five capsules look like a \$1.25 value, in a package with good display value. Minit Curl does it with a window carton of folding construction with an integral display header piece, enclosing the small capsules in a die-cut platform.

ORIGINALITY is claimed by Insta-Curl, which says it was first on the market and is suing Magi-Curl (below) for \$1,200,000, charging among other things, imitation of its package. Both companies use the shadow-box treatment dramatically to present the capsules and the sales message.



FIRST OF A SERIES



On this month's cover . . .

LOG CABIN *Syrup*

NOMINATED FOR PACKAGING'S

HALL OF FAME BECAUSE:

- The package itself is one of America's best known trademarks
- It pioneered packaging in a new product field
- It has kept pace with all new merchandising trends
- For more than 60 years it has been a top-selling brand

1890



OLDEST CABIN in General Foods' possession is this hand-soldered miniature which someone made into a whale-oil lamp.

PATRICK J. TOWLE in 1887 made a new table syrup and put it in log-cabin-shaped container.

Log Cabin Syrup is one of America's oldest and best known grocery trade names—largely because of a package.

The little cabin-shaped can (see cover illustration) has become as familiar to the American scene as flapjacks. Its homespun individuality has helped carry Log Cabin Syrup to top leadership among maple-blended table syrups and kept it there. Numerous market studies by independent agencies show that its closest competitor—Vermont Maid—in a more conventional container, has never in normal years reached quite halfway up the same ladder in consumer preference nationally. World War II, with its terrific demands for metal, forced Log Cabin Syrup into standardized glass containers for a time, but now the cabin is back again, modernized in design and selling faster than metal container production can keep up with it.

The long-standing success of this packaged product justifies its presentation here in the first of a series of articles in which MODERN PACKAGING will make its nominations for packaging's all-time "Hall of Fame."

To estimate the intrinsic value of the Log Cabin package symbol is about as difficult as trying to explain the basic appeal of the miniature log cabin itself—for reasons which are closely allied. As a trademark, the Log Cabin is entered on the books of General Foods Corp. as a good-will asset at a lawyers' valuation of "\$1." Without the promotional showmanship this symbol has provided, however, officials of the Log Cabin division concede, it is hardly likely that Log Cabin would have won and held its enviable top-ranking brand and sales position, no matter how good the product and regardless of how many advertising dollars were spent.

Every General Foods executive and every member of the 1,200-man sales force in the 24 sales districts of the General Foods Sales Corp. is as sentimental and enthusiastic today about the log-cabin-shaped can as was Patrick J. Towle when he introduced the now familiar package more than a half century ago. They like it



1914

front



back

THE NAME, Log Cabin, it is said, was inspired by Mr. Towle's boyhood admiration for Abraham Lincoln. Cabin-shaped container provided an unforgettable symbol for syrup on the American breakfast table.

because dealers like it. Dealers like it because their customers like it. Customers like it because the kids like it, or because they associate it with their own childhood, or just because deep down psychologically, perhaps, everybody is a child at heart and likes a toy.

Will the appeal of the log-cabin-shaped container—which children have used for more than half a century to make penny banks, bird houses, trains and toy villages—ever wear out its usefulness as a sales tool?

There are certain sections of the country—namely, New England, New York, Pennsylvania, Virginia and Maryland—where table syrup has always been traditionally preferred in glass containers. In these areas, as well as in other sections of the country, Log Cabin is now being sold in an entirely new decanter-type bottle. This bottle (also shown on the cover) is a faithful replica of a 100-year-old hand-blown container made by the Old Waterford Glass Works of New Jersey and found in the collection of Capt. Horace Bucklin Sawyer of Burlington, Vt., a naval hero of the War of 1812. The development of the bottle represents an outstanding achievement of the glass maker in the adaptation of an antique bottle to modern manufacture and production-line use. The bottle is designed with strong appeal for re-use as a decorative piece in the home for flowers or ivy.

It should be noted that the bottle label associates itself as closely as possible with the can—using the same colors, lettering, the Towle name and, very conspicuously, the silhouette imprint of a log cabin. An interesting feature is the fact that the oval provided in the bottle design for placement of the label is not a flat surface, as might be expected for easier gluing, but continues the “cut” design for maximum good looks in re-use, thereby retaining the authentic appearance of the antique bottle. The label actually adheres only at the center and around the circumference.

The bottle has, according to company officials, gained considerable acceptance in the traditional glass areas, where it has been used for only a short time. It is also reported to have received favorable

acceptance in the traditionally tin areas where it has been tried out due to short supply of the tin pack.

No conclusions should be drawn from this, however. For the past nine years, there has been a product shortage of Log Cabin Syrup. Last year the company anticipated an ample supply and geared its promotion to that end. Yet, in spite of the fact that it is selling more than twice as many units as ever before in the history of the product, the company still cannot get enough basic ingredients—pure maple sugars—to supply the demand for Log Cabin. Times are good and most housewives have money to spend, but with the price of meat so high, they are apt to seek substitutes. To vary the meatless spaghetti and rice casserole menus, they apparently are serving more pancakes and waffles, which require a table syrup. The maple flavor and 60-year-old brand name of Log Cabin are popular. The consumer is thus apt to pick her favorite brand if she can get it, regardless of container.

The new glass container also has a novelty element. Until there is assurance that this novelty has worn off—until there is an adequate supply of Log Cabin Syrup in both cans and glass containers to run a three months' sales test of equal tin and glass in carefully selected areas—it is impossible for anything approaching a positive statement to be made. The glass container manufacturer, because it has made a beautiful bottle, is sure that its appeal, given comparable promotional wallop, can beat the tradition of the log-cabin tin. It is rumored that the can maker—who has to maintain specialized production equipment to make the cabins—would not be unhappy if it did.

The Log Cabin division of General Foods expects to run such a test as soon as conditions are right—sometime during the first half of 1949, it is hoped. It does not take a visitor at the Log Cabin plant long, however, to sense how the Log Cabin sales force expects the test to turn out. If you ask them why, they will smile in a knowing sort of way and say simply, “Dealers want cabins.” When glass was used during the war, dealers kept asking when log-cabin tins were coming

back. Now that they are back, dealers in the traditionally tin areas want more of them for one simple reason—customers want them.

History of the package

Paralleling the growth of Log Cabin is the success story of an individual, typical of many of the founders of American businesses during the late nineteenth century. In 1887, Patrick J. Towle, a wholesale grocer in Chicago, moved his family to St. Paul, Minn., to seek his fortune in the Upper Mississippi Valley. From there he made frequent trips back to Chicago and the East to obtain bulk products such as molasses, tea, coffee and matches for the rich and expanding agricultural areas.

He saw the prominent place of syrups on the breakfast tables of Minnesota pioneers. He also was aware that few people knew about the delightful taste of syrup made from the sap of maple trees and had to be content with other types of syrup ladled out in bulk from barrels. He was sure that maple syrup was what the public wanted if it could be made available. The supply of maple syrup, however, was limited and its cost high.

Mr. Towle had been successful in devising several blends of coffee. It occurred to him that if coffee could be blended, why couldn't a maple-flavored syrup be obtained in quantity by blending the best grades of Vermont and Canadian maple sugars with cane sugar? He started experimenting and finally arrived at a formula which, although much improved in processing, is still used today at the modern Hoboken, N. J., plant where Log Cabin Syrup has been manufactured since 1929. Manufacture was moved from the original site in St. Paul after General Foods acquired the business in 1927.

Realizing also the growing importance of a packaged

product that the maker could promote under his own name, Mr. Towle decided to sell his syrup in sealed containers. Consumer agitation for pure foods was growing at this time and a sealed container offered the consumer the best assurance of a product free from contamination and a brand name for which the maker was responsible.

The name "Log Cabin," it is said, was inspired by Mr. Towle's boyhood hero worship of Abraham Lincoln, whose rise from log house to White House was the ideal of frontier individualism. It also seemed to Mr. Towle that because Lincoln was born in a log cabin, the name Log Cabin might identify the new syrup with the integrity so admired in Lincoln as well as with the food of American pioneers—pancakes and syrup. The container shaped like a log cabin was a happy sequence to the selection of the name. According to his grandchildren, some of whom still live in St. Paul, Mr. Towle was something of a tinsmith. With an associate named J. W. Fuller, he himself fashioned the first log-cabin-shaped container by hand.

He went to a firm of local can makers in St. Paul, named Horn & Danz Co., to see if they could make the can in reasonable quantities. A young man named George Weber (later general manager of manufacturing of the American Can Co.) was given the first assignment of making production samples. The cans at that time were, of course, hand made with a set of tinnery tools worth about \$150. The original cans were not lithographed, but carried printed paper labels on which the design of the log cabin was reproduced along with the trade name, "Towle's Log Cabin Maple Syrup." (There was no Federal Trade Commission then to forbid the labeling of the blended syrup as "maple.")

Shortly after he perfected his product and container, Mr. Towle acquired a small factory in St. Paul. Gradually sales expanded to cover the entire country. At

CARTOON CHARACTERS were introduced on the reverse sides of the packages during the '30s and kept there until the war forced Log Cabin Syrup into glass. Cabins made as coin banks (right) have been used in many charity drives.

WARTIME BOTTLE of standard shape was adopted in compliance with Government glass orders.



1933





1948 CABINS give billboard display to brand name on both sides of package for self-service selling. These cabins, designed for long-range visibility and just re-introduced last year, are the first to make their appearance since the war.

first the quantity of cans he purchased was small, but within a few years the demand for the product grew by such leaps and bounds that the Horn & Danz Co. had to install presses, dies and squeezers to keep up with orders for the cabin-shaped cans.

A fire destroyed the original Log Cabin plant on April 2, 1902, and had it not been for money laid aside in good years, present members of the family say, the business could not have survived.

With the organization of the American Can Co. in 1901, the Horn & Danz plant became a part of that company and, of course, the Log Cabin business went with it. After Log Cabin manufacturing was moved by General Foods to Hoboken in 1929, Canco moved its special equipment for making the containers, line by line, from the St. Paul factory to its Hudson plant in Jersey City. By 1931 new machines had been designed and constructed and since that time the table-sized cabin container, the leading seller, has been made on fully automatic equipment.

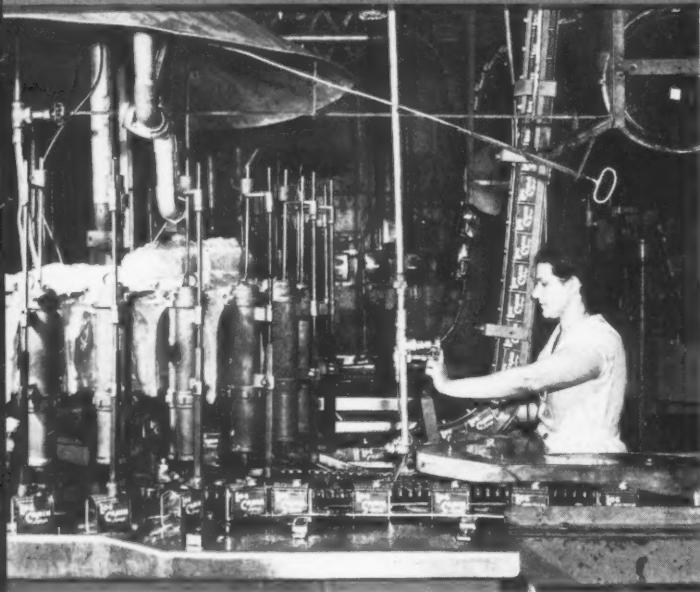
According to Canco's records, the flangers and body makers had always been automatic, but the operation of fitting and adjusting nozzles on the cabins had been done by hand, as well as the testing. Special equipment for filling and closing the cans is also a development of the can supplier. Surviving members of the Towle family believe the first rotary fillers were installed in 1914, after which volume began to expand rapidly.

Much study was given to the adoption of the patented Newman closure on the Log Cabin container to assure

NEW DECANTER BOTTLE with strong re-use appeal is also being used as a packaging aid. Eventually tests will be run to determine appeal of cabin versus bottle. Some sections of the country traditionally prefer syrup in glass.



Cabin tin and glass lines



FILLING AND SEALING of the cabins is automatic.



SPRAY TUNNEL where filled cabins are cooled and washed.

a tight, tamperproof seal. This closure consists of a friction-type, tin-coated blackplate cup, coated with a sealing compound. When pressed into the nozzle of the cabin containers at a 30-deg. angle on spindle machines which generate friction heat to seal the compound, this closure will hold from 5 to 15 in. of vacuum. It thus provided a very economical, tamperproof seal and one that could not be accomplished by means of double-rolled seams on a container which has so small an orifice as the pouring spout of the cabin-shaped containers. This inner seal is further protected by a metal, screw-type dust cap which also is a convenience to the housewife for reclosing the container after she has opened the inner seal.

Patrick J. Towle died in 1912 and left his business to three sons: William J. Towle, who became president and held that position until the company was sold to General Foods; Eugene A. Towle, who became treasurer, and Frank I. Towle, who was general sales manager.

Good as it may be, no package or trademark alone is sufficient to guarantee 60 years of uninterrupted success. Primarily, of course, the product must be right and its quality must be maintained. And advertising and sales promotion will be found to have played their part for any of today's long-famous packages.

William J. Towle was a great believer in advertising and spent large appropriations each year—first through the J. Walter Thompson Co. (Chicago) and later, from 1925 to 1927, through Blackett & Sample, Inc. The current agency is Benton & Bowles, which has handled the account since 1930. A good product, combined with promotion, an unforgettable package, a strong sales force and good distribution really began to pay

off. Rumor has it that at one stage during William J.'s régime, Log Cabin Syrup moved out of St. Paul by the trainload every week and top salesmen were paid as high as \$50,000 bonuses.

General Foods acquisition

It is small wonder that General Foods Corp., just then in the midst of an expansion program typifying the new economic logic of group management and the trend of the '20s toward corporate consolidations, should look approvingly at the Log Cabin Products Co. as a possible new member of the General Foods family.

The Postum Cereal Co. in 1925, with Edward P. Hutton as chairman and Colby Chester, now honorary chairman of General Foods, as president, took the lead in organizing the General Foods family. In exchange for stock in The Postum Cereal Co., they began acquiring well established and successful companies in the food industry whose products were of high quality and whose brand names were known to every household. The first of these was Jell-O, then Iglehart Bros. (Swansdown Cake Flour), Minute Tapioca, the Franklin Baker Coconut business, and Walter Baker cocoa and chocolate products. In the beginning, this group never gambled on an unknown product. The basic philosophy was to purchase success and develop that success further. Old timers in Wall Street say it was Eddie Hutton's and Mr. Chester's vision in this respect that put it over. Research and statistical staffs were hired to investigate all manner of possibilities in the food industry. Earnings were watched over a period of years and the price offered was usually 10 times average annual earnings.

operate side by side



STERILIZING equipment for bottles prior to filling.

The basic reasoning was that "a variety of products with varying seasonal demand would help to level out seasonal peaks and valleys of production and distribution. A national sales force could be kept at work throughout the year. Consolidations would result in savings in administration, purchasing, production, transportation and distribution expense. Coordination of experience, brains and resources in research, production, sales and advertising would help to preserve and develop the progressive, pioneering spirit associated with the company."

The Log Cabin company, with its quality product, its unique package, its good distribution and its record earnings, fitted the pattern and the deal was consummated in 1927, two years before General Foods Corp. became a corporate name, making Log Cabin the seventh member of the General Foods family now numbering some 25 divisions.

Moving Log Cabin manufacture from St. Paul to Hoboken in 1929 brought the operation some 1,500 miles nearer the sources of its raw materials—Vermont and Canadian maple syrup and Cuban cane sugar—thereby effecting important production economies.

The manufacturing process was completely revamped and the product improved by change-over to filter-press methods. More experimental work was undertaken to blend the three syrups to meet flavor preferences of the greatest number of consumers. Laboratory methods were established to assure the highest grades of sugars. After blending, the sugars were cooked at carefully controlled temperatures for sterilization and to prevent crystallization and deterioration. Laboratory methods were also established for quality control of packaging supplies and production.

All of these measures were taken to assure the quality that Towle believed he had originally symbolized in the Lincolnshire log-cabin shape of the package.

The cabin containers are currently supplied in three sizes—the table or 12-oz., which is the smallest; the medium, 26-oz., and the large, 58-oz. The cabin cans are made of blackplate with a thin electrolytic coating of tin. In addition, there is a 1-gal. container for institutional use. The trademark design is lithographed on all these containers.

Through the years, the surface treatment of the containers has been changed many times to meet new merchandising trends, to comply with various legal requirements and to create new interest—although the distinctive log-cabin shape was never given up except in wartime. In 1933, the log-cabin tin was imprinted with whimsical cartoon characters on the reverse side, while visibility of brand name was strengthened on the front panel at the same time. The current cabins, redesigned and just re-introduced following World War II, give a sort of billboard display to the brand name itself, on both sides of the cabin, essential for today's self-service selling. The log-cabin shape, which heretofore has been depended upon for recognition even above the name itself, does not show up too well when viewed from a distance on crowded super-market shelves; therefore it was felt that the name must be emblazoned boldly on both sides of the container in white letters against a brilliant red "blanket," which ostensibly is nailed to the side of the cabin. This technique, since it reveals the poster effect of the name on both sides, does not put the burden on the storekeeper to arrange the cans with the billboard side on the shelf facing the shopper.

Unfortunately for the nostalgic customers, this necessity crowded off the reverse panel the amusing backwoods cartoon characters which for years had been as familiar as the cabin itself. Some thought now is being given to reviving these characters and placing them on the now-empty end panels.

Advertising and promotion

Since General Foods makes public no sales or advertising figures for specific products, not much data is available on the amount of advertising support currently being given Log Cabin. American Newspaper Publishers Assn. figures on Log Cabin advertising are available for only a few recent years. They show that in 1939, which may be considered the last normal prewar year for syrup marketing, the Log Cabin outlay in newspapers and magazines was \$128,000—a very sizable expenditure for a product of this type. Production is limited by the amount of maple sugar available in any year.

During the war years, when production of Log Cabin was drastically restricted by the sugar shortage, advertising was practically nil—only enough to keep the brand name alive. During 1946, with a more generous supply of product available, (Continued on page 180)

Armour's ethical 'A'

IT KEYNOTES THE DIGNIFIED BUT MODERN REDESIGNED LABEL

FOR MEAT PACKER'S LINE OF 700 PHARMACEUTICAL PRODUCTS

The producer of ethical pharmaceutical preparations has a delicate packaging design problem. Although many of his products are dispensed through a physician's prescription, many others are selected directly by the consumer. Whichever the case, they will most certainly be displayed openly at the point of sale for rapid and easy selection. These circumstances dictate that the packages be attractive to the buyer and that the dealer be proud to display them. For this reason any suggestion of blatancy in the label which might create a non-professional appearance must be avoided. On the contrary, design of the package must reflect the high quality standards of the producer, with dignity and restraint which will be acceptable to members of the medical profession, the dealer and the consumer.

The manufacturer cannot overlook the fact that when these preparations, label intact, come into the home of the actual user, an impression of the product more lasting than that received in a quick across-the-counter sale is bound to be made. This being the case,

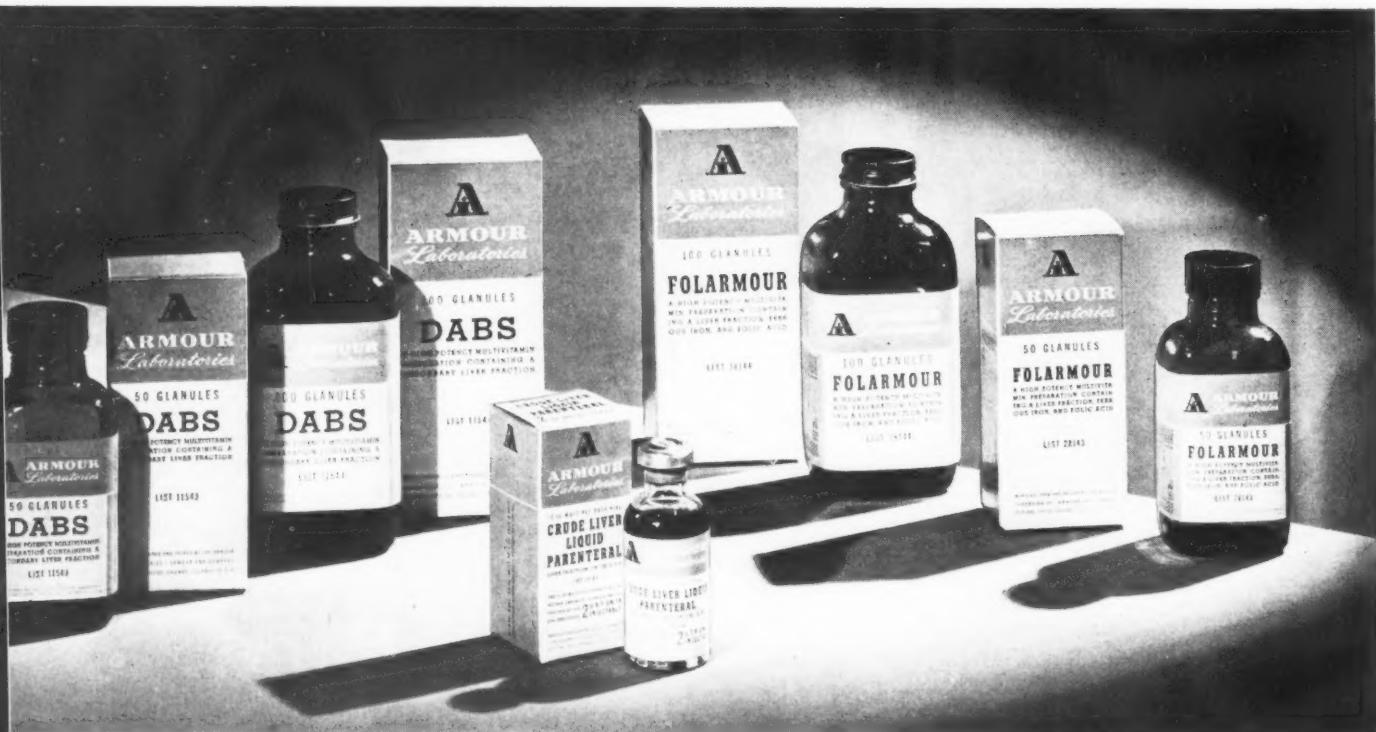
it behooves the manufacturer to incorporate in his label adequate company identification, governmental specifications, clear-cut use instructions, as well as a general design which will be pleasing to the person using the drugs.

While these elements are not necessarily incompatible, they sometimes fail to receive deserved attention in designing ethical labels.

One of the latest examples of a happy blending of these desirable properties is the newly repackaged line of pharmaceutical products of Armour Laboratories, a division of Armour & Co., the Chicago meat packers. Packages for this family of drugs, which include more than 700 products ranging in size from 1-cc. vials to 32-oz. containers, have just been redesigned by a leading industrial design organization.

Extensive research on such factors as color, size, governmental regulations, etc., preceded actual creation of the new Armour Laboratories packages. As a result of this study, the packages were restyled with uni-

RESTRAINED YET DISTINCTIVE design treatment of the new packages is readily apparent in this group. Cool green background is used on all labels for family relationship. Note effective use of white space.



ADAPTATION of the new label to flat set-up boxes is readily accomplished without sacrifice of identity. The arrangement of product name and other elements follows an orderly pattern.



formity and with a refinement in design and color which highlights the well recognized Armour name of quality and acceptance.

Hygienic purity is basic in the consumer's choice of any pharmaceutical product. This consideration dictated the use of a cool aseptic green as the basic package and label color, both for its freshness and for customer appeal. Against a white background of top quality paperboard stock, an off-black is employed for the printed matter—a combination adding merchandise impact for counter or shelf displays and other point-of-sale media.

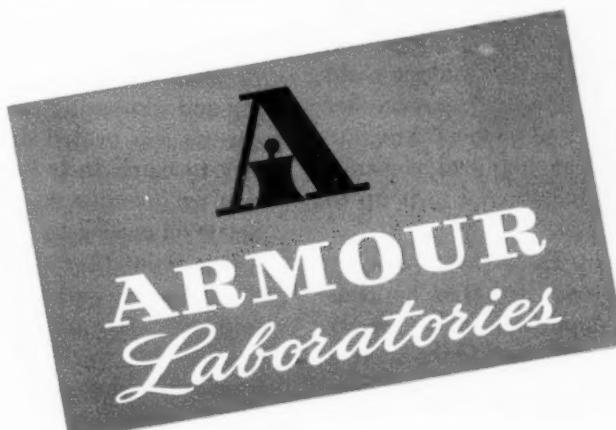
Front and back panels of the new packages are divided into thirds, while the side panels are solid. Dominating the green top third is the distinctive, newly designed trademark of the Armour Pharmaceutical Division—a massive "A" incorporating the apothecary's symbolic mortar and pestle. The dignified "Armour Laboratories" signature is printed in white beneath the trademark, as a guarantee of the dependability of the product. The lower two-thirds of the package, printed black on white, carries the product name and pertinent copy, including the quantity of doses, vials, "granules", etc., and the identifying list number of the product. The symbolic "A" also ap-

pears on the side panels of the packages in most instances.

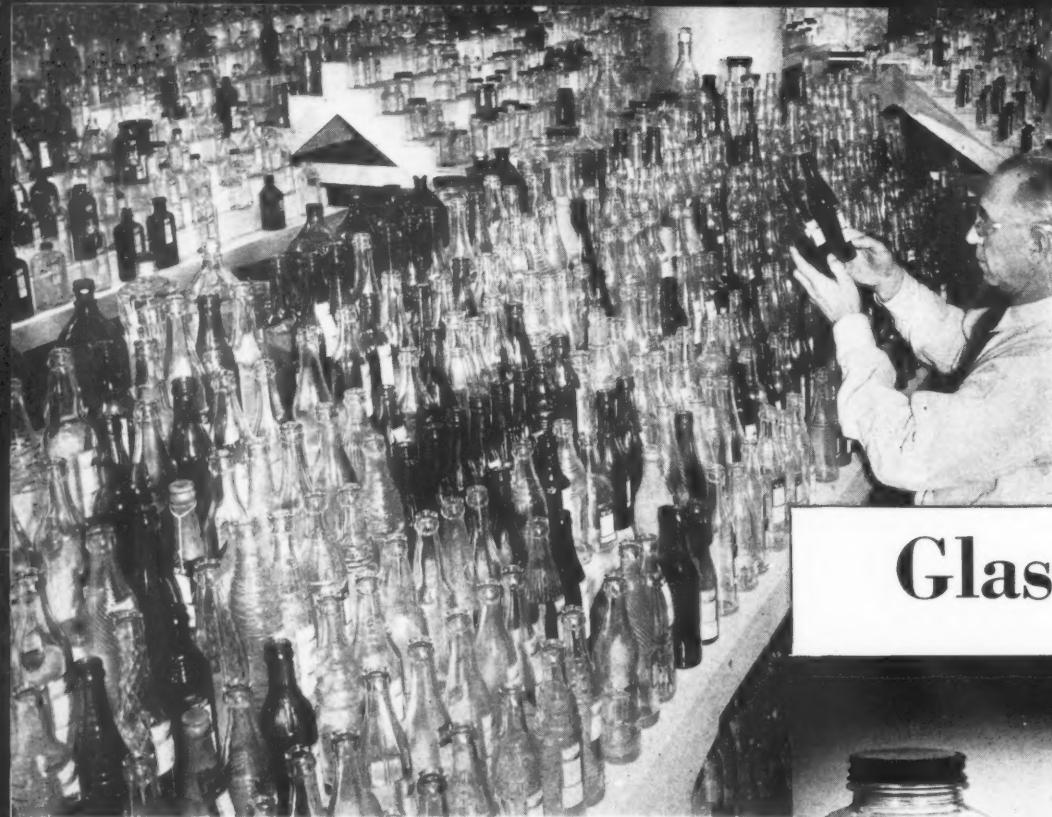
The same basic color and design treatment is closely followed on all packages, bottle and carton labels, inserts and stickers used in connection with the Armour pharmaceutical line. While contributing to a pleasing appearance, this design has also provided sufficiently large areas for highly legible, detailed body copy without sacrificing clean, refined style.

Another factor receiving close attention was a provision for flexibility, rendering the packages adaptable to any copy changes that might be required in the future. This problem was met by so designing the packages that the product name and description appear on the white panel, with the result that any such copy alterations require changing the black plate only.

The new Armour Pharmaceutical packages supplant an earlier group of containers and labels in which dark green borders were used in connection with three vertical bands encircling the package, with yellow as the background color. Detailed label data, including product name, had formerly appeared within a diamond-shaped white area on front and back panels.

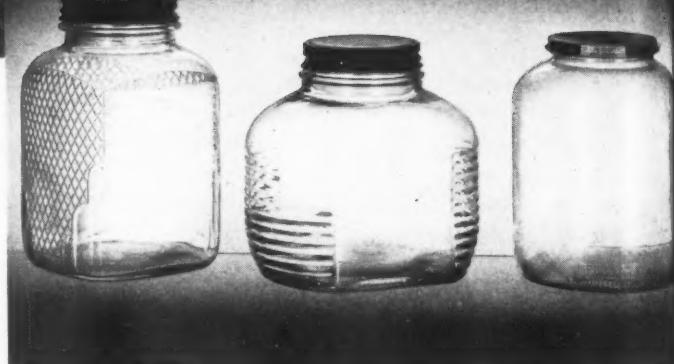


CREDIT: Redesign program, Raymond Loewy Associates, New York and Chicago.



A VIEW OF ONE SECTION of the Bottle Library gives an idea of the extent of this reference collection. Containers are classified according to product field and each is labeled with date and mold number.

Glass maker's



COFFEE JARS. Modern version on right is 7 oz. lighter than its predecessor at the left and $8\frac{1}{2}$ oz. lighter than the earlier jar illustrated in the center. Early types of bottles weighed as much as 30 oz.

There is today considerable emphasis among the users of glass containers on finding a unique design, so unusual as to make it stand out from all competitors, past or present. Just how difficult this problem may be is well illustrated by the Bottle Library maintained by the Owens-Illinois Glass Co. as a feature of its new Duraglas Center in Toledo.

The library serves also to point out with striking clarity the improvements in function and convenience that have been made in recent years in glass containers for such common products as coffee, olives, catsup and extracts.

There are approximately 9,000 glass containers in the Duraglas Bottle Library—all different. It is probably the largest collection of sample bottles in existence. As new bottle designs appear, samples are added to the collection.

Functions of the library

An important function of the Bottle Library is related to the compilation of specification sections and the preparation of bottle illustrations for catalogs, mold lists and directories. An Owens-Illinois glass container catalog, containing as it does hundreds of separate items and dozens of illustrations, requires constant addition and revision to keep the material in it up to date.

For the Design Development Department, the library performs valuable services. It often happens that a container on order is a duplication of, or closely resembles, a container already on the library shelves and the information available in this manner may prevent a duplication of work already performed.

Actually, the Duraglas Bottle Library is to the glass container industry what the "morgue" is to a newspaper or what stacks are to a conventional library. Customers, when accompanied by sales people, are free to examine the display and many of them do obtain new ideas in packaging designs.

There was, for instance, a group of buyers from South America who spent an entire day in the library inspecting and comparing the different designs and sometimes engaging in heated discussions before flying to a port city to catch their boat for home. On another occasion an inventor was able to find exactly the type of bottle he needed to complete his invention.

One point that the library graphically illustrates is the immense variety in sizes and uses for glass containers. After all, 9,000 different bottles does mean considerable variety. The containers range in size from a wide-mouth packer, used for medicinal purposes, which weighs three-eighths of an ounce and has a capacity

of $1\frac{1}{4}$ cc., to an acid bottle weighing 14 lbs. and having a capacity of $6\frac{1}{2}$ gal. In design they range from the plain, practical Boston rounds to some of the more intricate and ornate private-mold liquor bottles.

All the containers displayed in the library were made on high speed, automatic, bottle-blowing machines—all, that is, with one exception. That single exception serves as a reminder of the days less than 50 years ago when all glass containers were hand made, with human lung power blowing the bottles into shape. Strangely enough, the lone exception is not an ancient bottle at all. It is a 194-oz. penicillin culture bottle made es-

tions—the stock designs and the private-mold designs.

Stock designs are those standard designs which are available for the use of any customer. For greater customer convenience and speed in handling orders, those stock bottles in greatest demand are generally warehoused for immediate delivery. Stock containers are designed primarily for all-around utility and convenience in handling and in use.

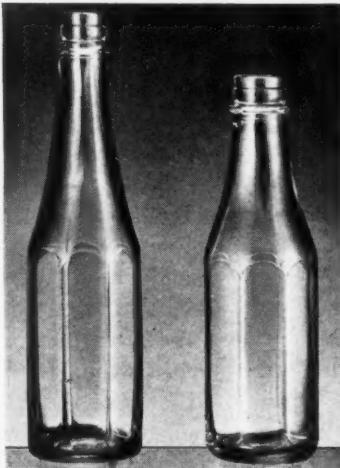
Private-mold designs, on the other hand, are containers made especially for the use of certain customers. This of course permits of greater variation than in the stock designs, although even in the case of

bottle library

9,000 'VOLUMES' PROVIDE VALUABLE REFERENCE
TO GLASS PACKAGING, BOTH PAST AND PRESENT



WHAT'S HAPPENED to the olive jar is graphically illustrated by this comparison. Modern jar is about half as tall and one-fourth wider.



CATSUP BOTTLES stubbornly resisted change, but research proved customers prefer compact one at right.



LIQUOR BOTTLES always have profited by distinctive design. Above are machine-made versions of three typical trademarked bottles—the stirrup, the fiddle and the cordial shape.

pecially to order and resembling somewhat an over-sized cough syrup bottle. Hand-blown ware for special orders is still produced in one section of the Libbey Glass Division plant in Toledo, a subsidiary of Owens-Illinois.

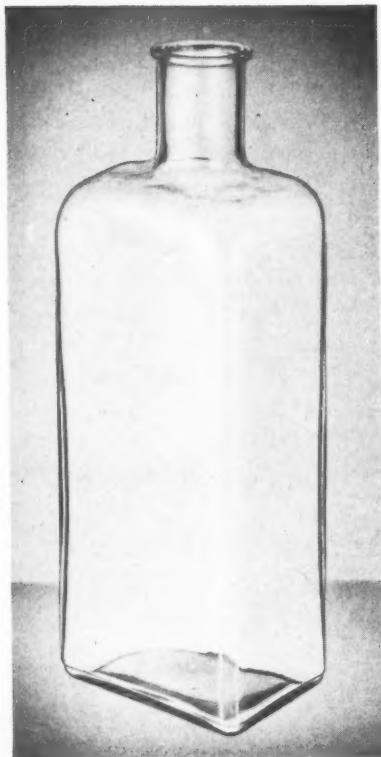
Classifications of containers

Containers in the library are grouped according to the types of products they are designed to package, just as books in a library are cataloged according to subject matter. Some of the categories are Dairy Products, Packaged Foods, Processed Foods, Beer, Beverage, Wine and Liquor, Prescription, Household Chemicals, Toiletries and Cosmetics, Pharmaceutical and Proprietary, Coffee and Baby Food. This breakdown enables the "librarian" to find any bottle in stock at a moment's notice.

In addition to their division according to use, glass containers in the library include two general classifica-



ONLY HAND-MADE SAMPLE in the Bottle Library is this 194-oz., made-to-order bottle used in the early development of penicillin. Mold cultures were first grown in bottles like this one.



REPRODUCTION of an antique handmade bottle is this beautiful amber-colored liquor decanter to be found in the Bottle Library.

private-mold designs there has been a noticeable trend toward more conventional patterns. In many instances today private-mold designs are merely variations of stock patterns. There are no such examples as the elaborate Moses mineral water bottle—famed as a collectors' item, but impractical in actual use—which is found in the modern container library. Neither are there any glass containers with three necks or bottles shaped like bears or the Baltimore Monument. Most of these have long since disappeared from all except museum or private collections.

The most unusual designs are found among the private-mold liquorware, a division of the glass container industry which has long been noted for its originality. Even here the trend toward greater standardization and fewer extremes in design has been marked. There is nothing comparable to the famous "log cabin" whisky bottle, associated with the election of 1840, nor are there any longer bottles shaped like Indians or dominos. Two interesting throwbacks to earlier days are the "stirrup" bottle, sometimes called "Boots and Saddles," and the "fiddle" bottle, both of which were in use before the Civil War.

Consumers designed them

When it comes to designing the shapes and sizes of many present dry glass containers used in the home, the glass manufacturer, in addition to employing expert designers, also turns to the homemaker for help. Her opinion is highly valued and her answers become a guide to both designers and production men.

By consulting thousands of homemakers through a national research panel, the glass manufacturer learns

what design and convenience features of glass containers are most in demand. An example of this attention to consumer wishes is presented by the change in the shape of the flavoring extract bottle. The change has been so recent that many persons still recall the tall, oblong shape commonly used for extracts. This was the traditional design. Housewives, however, expressed a desire for a shorter bottle with a more substantial base.

The present extract bottle is designed to stand so firmly on a work table that it will not fall even with vibration caused by beating and mixing. The 3-oz. bottle, for example, is nearly an inch shorter and almost an ounce lighter than its predecessor. These last two features are important considerations for both the manufacturer and the retailer as well as for the consumer. They mean lower shipping costs and, since the present bottles are shorter and more compact, less storage space.

One of the most easily identifiable packages for food is the catsup bottle. Its shape was traditional in the food industry for many years. Some years ago packaging research studies revealed that a number of advantages would result from shortening the height of the bottle while making the opening of the bottle larger. The larger opening would contribute toward easier pouring, while the more compact design would provide more convenient storage in home refrigerators. From the packers' standpoint, the change in bottle shape would result in substantial weight and space saving.

In spite of the admitted advantages of the new design, there was some hesitation about changing over to the new catsup bottle. For one thing, there was fear that housewives would not buy the new, shorter bottle, because it looked smaller, even though it held exactly the same amount of catsup as the tall bottle. Through painstaking and widespread consumer investigation and by simultaneously offering the product for sale in certain controlled retail stores in both types of containers, it was established that consumers not only would buy their catsup in the new package, but would welcome such a change.

So the modern catsup bottles have been streamlined to provide greater convenience and economy. Where the old type bottle had a 26-mm. or "Goldy" closure with a deep shell cover cap, the majority of bottles used today take 30- or 32-mm. closures, with some 27- and 31-mm. closures also being used. The present bottle, moreover, is equipped with a deep cap which fully protects the pouring lip and provides efficient reseal features.

The old style olive bottles in the Bottle Library are tall and slim, the traditional packaging style for olives. While the difficulty in removing olives from this type of container has no doubt been greatly exaggerated, research by Owens-Illinois showed that the majority of consumers preferred a change in design.

The result is an olive bottle that is only a little more than half as tall as the earlier bottle and with

a wide mouth which permits the consumer to remove the olives without difficulty. Moreover, the new bottle is easier to pack and easier to ship and is more convenient to store in the home.

Homemakers of the nation were responsible for the design of the present syrup bottle. Until recent years syrup had to be transferred from its original container to serving dishes before the meal and then returned to the original container for storage. This caused extra work and inconvenience for the housewife, as well as a loss of syrup.

The present package permits easy pouring of this highly viscous product. A positive reseal is accomplished by the screw cap and—most important of all—answers the pleas of housewives who wanted to put the product on the table in its original package. The latter feature is particularly important since it is almost axiomatic in the food industry that more of a product is consumed in the home when it reaches the table in its original container.

Closures

No container is a complete package without the addition of a closure and there is a closure for each of the 9,000 containers in the Bottle Library. In fact, the closures are as indicative of improvements in the field of glass packaging as are the containers themselves.

The type of closure, like the type of container, is usually determined by the product that is to be packaged. This explains why closures are not all one type and why a closure which is suitable for one type of product may not fit the requirements of another.

For example, an injection-molded polystyrene closure with an injection-molded polyethylene liner, which has

special venting features, was developed for the $6\frac{1}{2}$ -gal. acid bottle after considerable time and expense. This was considered necessary because most acids tend to build up internal pressure as a result of changes in temperature. Obviously, a closure of this kind would be both too expensive and unnecessary for use with most products.

In processing many foods the modern objective is that of excluding as much air as possible. Such a method of processing is known as the vacuum seal and varying proportions of the desired vacuum (absence of air) may be secured in one of several ways. Research has shown that the common "pry-up" cap provides the most effective hermetic seal for processed foods like baby foods, vegetables and fruits, or for mechanical vacuum packs like coffee.

With other products which do not require a hermetic seal, ease of resealing may be the important factor. This is true with such products as pickles, salad dressing, vegetable oils and vinegar. Here a continuous thread (screw-top) closure is the most suitable.

Ideas about future packaging designs vary considerably, just as do the ideas about the new products which are to appear in these packages. However, the Bottle Library offers a study in packaging trends from which certain deductions may be drawn:

1. Styles in glass containers change, just as styles in automobiles or washing machines change, and glass container manufacturers are continually seeking new means to improve their products.

2. The ultimate style and shape of a container is determined by the consumer, whether it be the housewife in her kitchen or the neighborhood druggist behind his prescription counter.

LARGEST AND SMALLEST in collection are a $6\frac{1}{2}$ -gal. acid bottle shown next to a $1\frac{1}{4}$ -cc. pharmaceutical vial.



MODERN DESIGN is typified by compact, harg-to-tip extract bottle (right) contrasted with earlier long-necked one.





SPECIFIC APPEALS are necessary essentials of packaging carbon papers. This new group of Carter packages is designed to meet all stationery market requirements—quality, price, feminine interest, specific product uses.

Color strategy

THE CARTER'S INK CO. ADOPTS DAZZLING NEW PACKAGING

TO SELL QUALITY OFFICE SUPPLIES



most purchasing agents to consider for routine typing and not planned by the company as a volume sales unit. The new carbon has been named Golden Arrow. The box has a gold embossed cover design symbolizing an arrow and the oak-leaf wreath.

When the Carter salesman takes the new line of Carter carbon papers to the stationery dealer, he shows this dazzling de luxe package first. "This," he may say, "is the finest carbon paper we can make. Take a box of it. Give it as a present to the secretary of one of your good customers for getting out an ultra-special job."

The salesman doesn't recommend Golden Arrow except for the private office, or for those special jobs where the appearance of the carbon copies is as essential as the skill of the typist. Primarily, however, he demonstrates it as the golden anniversary package—and an achievement in carbon perfection. Then when he shows the rest of the line of quality Carter carbon boxes, the prices of \$5 for Carter's "Silver Craft" or \$4.50 for Carter's "Special Occasion" carbon paper—the highest

DE LUXE PACKAGE, with gold embossed cover paper, commemorates Carter's 50th anniversary as a national advertiser. It contains the finest grade of carbon paper that Carter can make.



When you go to a store expecting to buy a coat for \$50 and the sales clerk shows you \$150 ones, you may find yourself coming out with a \$75 or \$85 coat, thinking it a bargain.

With today's necessarily high prices, the seller in many lines often has to use this kind of sales strategy. A subtle use of this technique is suggested by the new packaging of a quality line of carbon papers just introduced by The Carter's Ink Co.

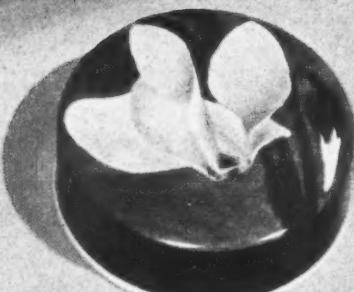
In commemoration of its 50th anniversary as a major national advertiser, Carter's has produced a top-grade carbon paper—the finest it can make and far superior to anything required for any ordinary purpose. A hundred sheets of this fine carbon, combined with 200 sheets of high grade manifold copy paper, have been de luxe packaged in a cellophane-wrapped sleeve box, containing two trays, one for the carbon paper, one for the manifold sheets.

The de luxe box is priced at \$10—way out of line for

FLORAL DESIGNS, full-color lithographed on metal boxes for typewriter ribbons, carry no trade identification on the top; therefore make an attractive re-use container. Assortments of the floral boxes are sold in dozen units.



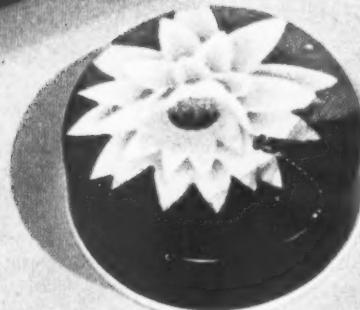
\$13.50



\$13.50



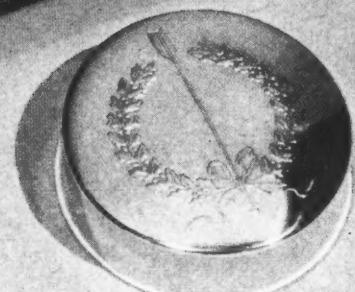
\$13.00



\$13.50



\$13.50



\$18.00

quality carbons usually demanded for fine copying work—do not seem high.

Unexpectedly, the company has had more requests for purchases of the Golden Arrow box than they ever anticipated. Dealers want this special de luxe package for salesmen to use as part of their customer presentation or as special gifts to top secretaries to bring the Carter's name before the women who use carbon paper. In this way this de luxe package is helping greatly to focus attention on Carter quality.

Similarly, good basic reasoning has been applied to the entire Carter package redesign program. The "Silver Craft" box, mentioned above, which contains top-quality carbon for commercial use, has the same embossed cover design as the "Golden Arrow" box, interpreted in silver and black to give it a feeling of ele-

gance. The "Special Occasion" package relies on feminine appeal, associating the idea of quality with a full-color illustration of a camellia corsage.

In the \$4 group there are three different packages. One of these associates the brand name, "Carter's Midnight," with a stylized design depicting the starry heavens. Two others, the Planet box and the Buccaneer, are planned as brand names in the same quality range to give dealers a wider variety and an opportunity for one-to-a-community exclusives in smaller cities.

Three packages for utility-grade carbon papers are aimed at a wider average market. Two of these openly bid for feminine approval, one appealing to the career-girl secretary, with a box-cover photographic illustration showing a girl proudly placing a finished piece of perfect copy on the boss's desk; the other, called "Five O'Clock," picturing the young secretary in a colorful round of daily activities. The third package, "Carter's Money-Saver," is planned unmistakably for "price" selling.

Modern business also uses considerable quantities of pencil carbon paper and Carter's has packaged two grades of pencil carbons in packages that immediately



DESK SET of colored writing inks in a convenient package of dignified design that is decorative for home use. Background of box is mahogany color with oak-leaf wreath gold embossed.

identify the contents with an effective stylized design of pencils on the box cover. Red and black backgrounds distinguish the two different types of pencil carbons.

Feminine appeal has also been injected into the redesign of Carter's typewriter ribbon packages. Beautiful gold and silver metallic boxes have been introduced as companion pieces to the Golden Arrow and Silver Craft carbon paper packages. Ideal typewriter ribbons are packaged in circular metal containers with full-color lithographed floral designs on the lids. None of these typewriter ribbon boxes has trade identification on the tops of the boxes, so that each makes an attractive re-use container for paper clips, pins or loose powder in the secretary's desk. Assortments of the four different floral boxes are packed in dozen units, so that each dozen contains a variety of all designs. The company name and all informative identification is on the bottom of the boxes.

Among other Carter package improvements is new elegance for the Jewel Case, a set-box containing five bottles of colored inks for writing-desk use. Background color of the box is a rich mahogany with the oak-leaf wreath design embossed in gold. Labels for the

bottles are also gold embossed with background colors matching the colors of the inks.

Labels for all Carter consumer packages of paste, mucilage and rubber cement have recently been redesigned to give them a more pleasing appearance for home-desk use. Backgrounds are done in muted tones of green, browns and blues, with conventional leaf designs in gold, tying in with the oak-leaf wreath motif of the other luxury packaging.

CREDITS: Box coverings for carbon paper boxes: Golden Arrow, Silver Craft and Special Occasion, Cambridge Paper Box Co., Cambridge, Mass.; Midnight, Dennison Mfg. Co., Framingham, Mass., and National Label Co., Philadelphia; Planet, Buccaneer, Director, Five O'Clock, Money Saver and Pencil Carbon, Becklar Press, Boston. Boxes: Golden Arrow, Dennison Mfg. Co.; all others, Scott & McDonald, Boston. Typewriter ribbon containers: Golden Arrow and Silver Craft, Bridgeport Metal Goods Mfg. Co., Bridgeport, Conn.; lithographed metal boxes in floral designs, Federal Tin Co., Baltimore, Md. Jewel Case: box and label, Cambridge Paper Co.; bottles, Brockway Glass Co., Chicago; caps, National Seal Co., Brooklyn; Pastes and cements: labels, Strathmore Press, Boston, and National Label Co.; containers, Brockway Glass Co., and Hazel-Atlas Glass Co., Wheeling, W. Va.; caps, National Seal Co.; Finished art work for Jewel Case and design of labels for pastes and cements, Clarence Hornung, New York. Floral designs, William Kapra, New York.



PRIVATE-MOLD BOTTLES have been adopted for most Carter pastes, with new labels in muted colors that have a pleasing appearance on the office or home desk.

Perforated counter display card

IT FITS ALL TYPES OF RETAIL
OUTLETS AND SELLS FROM 3 TO
36 BOTTLE STOPPERS AT A CLIP

A counter sales unit sufficiently versatile to meet all the conditions under which the product may be displayed and sold in many different types of outlets is indeed a rarity. Yet Hobby Hill, Chicago firm specializing in the development and sale of toys and specialty items, has done just that with an unusual, perforated type of counter sales card for its new Stop-R bottle re-closure for carbonated beverages, ginger ale, beer, wine, etc.

Leo Wolf, creator of the Stop-R, realized that in order

HALF THE CARD tells the complete story, including header strip. Each three-stopper unit, in fact, tells the main sales points: "Keeps drinks zippy"; "will not pop out." More variations of stand-up display, as sales reduce card, are shown. With only two units left, the card still stands up and sells.



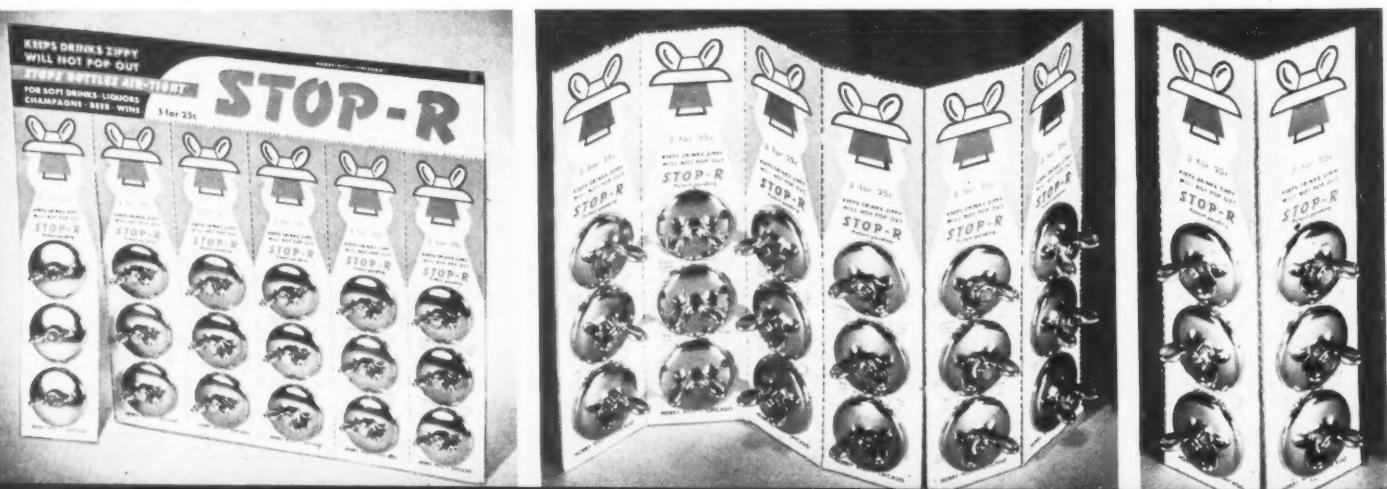
COMPLETE CARD comprises 12 sets of three stoppers each, perforated for individual sale. Center hinge permits card to stand alone. Sketch overlaid on this photo (not a part of display) shows how stopper fits the bottle, the rubber wedge expanding as the wing nut is tightened.

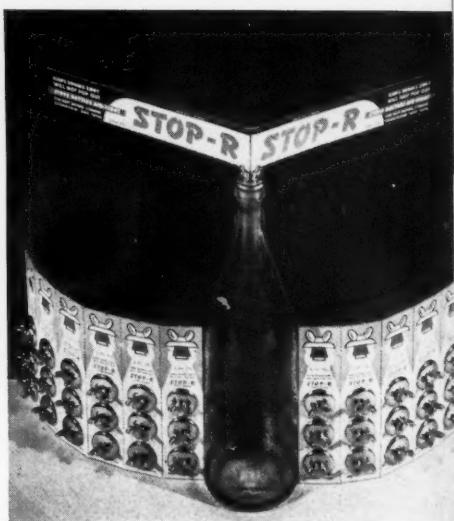
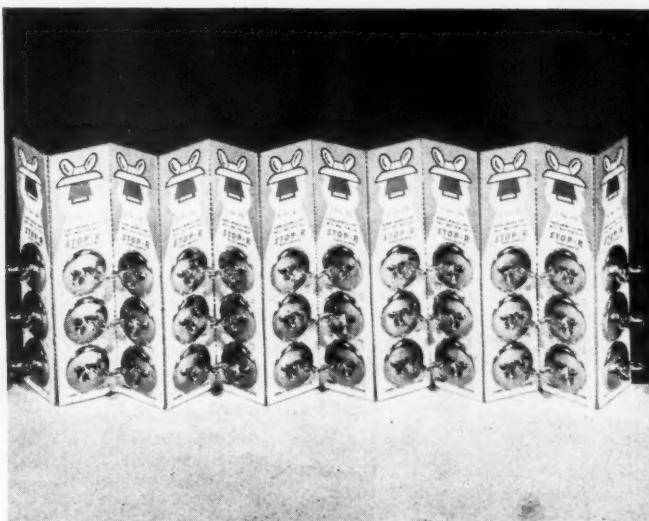
to obtain volume sales on this item, it was vital to streamline merchandising procedure.

Because of the relatively low margin of profit per sales unit for small products of the "gadget" class such as these, they very often are regarded as a nuisance by retail outlets. They are items which require a greater sales expense and more of the clerks' time than are justified by their return.

Mr. Wolf also recognized that drug stores, grocery outlets, variety stores and other logical establishments for handling this item are strongly opposed to bulky displays which require the utilization of a great amount of counter space.

He felt that if possible, the Stop-R should be packaged or carded in such a manner that it would stop store traffic, persuade the prospect to buy and make it easy for him to convert that impulse into action. It should be so constituted as to form a display as large or as small as each store might desire and one which would be





WITH HEADER REMOVED, the complete card can be arranged in many interesting ways, depending upon the amount of space available. All arrangements are suggested to dealer in diagram accompanying shipment.

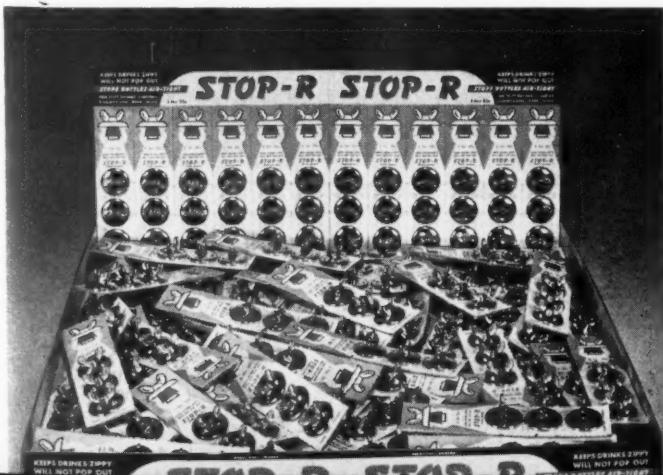
equally suitable for use on the counter, in windows or on store shelves.

At the outset, it was decided that the stopper would be sold in units of three at a total price of 25 cents. This would eliminate nuisance sales of a single unit and bring the unit of sale to a figure which would give the retail outlet a worthwhile margin of profit. Also, the quarter price was one which simplified purchasing and reduced the necessity of the clerk taking time out to make change. This was an important advantage to busy drug and variety stores.

The company wanted a sales card which would display the stoppers effectively, yet could be readily adapted with little effort to the amount of counter or shelf space available. Also, since the product was to be sold as a bin item in some types of outlets, such as variety stores, it was necessary that the card be easily broken down into single-sale units which would maintain product identity all the way to the ultimate consumer.

To meet these diverse specifications, Mr. Wolf came up with his unique, perforated, die-cut counter sales

BIN-TYPE DISPLAY is readily made by tearing up several cards and arranging them thus. Header strip from one card attached to front of bin adds display impact.



card which, in its original form, holds 12 three-stopper units of the product.

For counter or shelf display at the retail outlet, the card may be folded in the middle, along the score line, or divided into any convenient number of units and displayed in other ways, as indicated in the accompanying illustrations. Thanks to the perforated construction, the cards will still stand upright even when reduced to only two strips.

If the Stop-R's are to be sold from bins, it is a simple matter to break the entire card down into individual sales units of three stoppers each. The top section of the card, which is also scored, may be stripped off readily and placed in a convenient position to add display impact to the bin.

The repetitive design motif of the counter unit, taking as its background a bottle shape with the stopper shown in position, has been found to have considerable traffic-stopping appeal, particularly when the card is left intact or divided into large segments. In any event, product identity and the name of the manufacturer are maintained right down to the last sale.

The Stop-R card consists of nine-ply bristol board with a surface sheet of white Kromekote, printed letterpress in red, black and blue. The card is die cut so that the metal and rubber Stop-R units can be inserted through the openings and held securely. The manufacturing process is so set up that an entire card of the stoppers is loaded simultaneously by means of a hinged loading fixture which inserts them in proper position at the conclusion of the manufacturing operation.

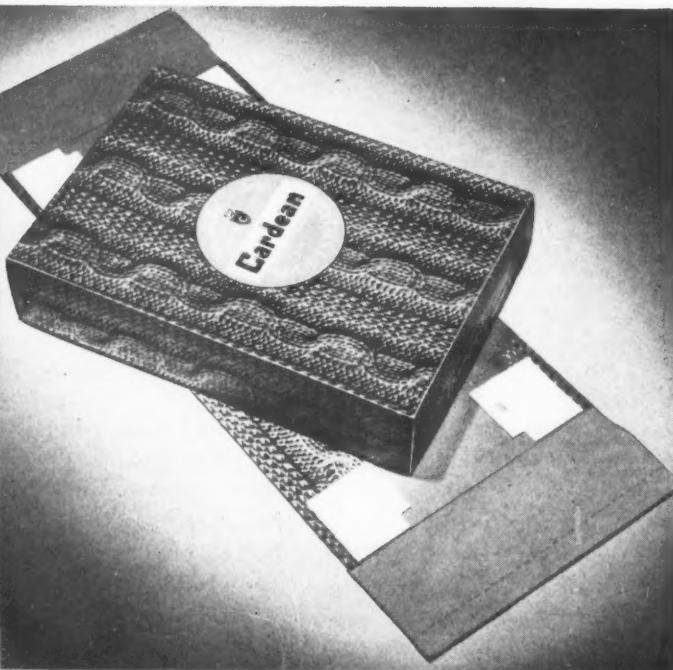
The success of the Stop-R display card in merchandising a small item indicates what might be done with a similar approach on other small products where sales potential is often handicapped by the relatively high sales cost involved.

CREDITS: Stop-R counter units, Spitz Printing Co., Chicago. Die cutting on card, A-1 Die Cutting & Finishing Co., Chicago.



DESIGN

NEW SWEATER BOX REDUCES RETAILER RETURNS BY 50%



A 50% reduction in retailer returns of merchandise has been reported by the Cardean Sportswear Co. of Baltimore since the adoption of this improved folding box for their knitted sportswear. Those formerly used had reached dealers in damaged condition—either with broken corners or a decided sag at the construction folds—and merchants were reluctant to put them on display. The eye-catching design of the new boxes, which is a reproduction of cable knit so popular in sweaters and jackets, prompted dealers to place them on display at prominent spots in the store, in view of customers. A half-tone made from a photograph of a Cardean garment showing the details of the cable stitch is used for letterpress printing of the box. Both the top and sides of the box carry the design, so that they may be stacked or laid side by side. Centered in a circle on the cover is the company name and trademark printed in orange and black.

CREDIT: *Box, Maryland Paper Box Co., Baltimore, Md.*

A REAL ALMOND SERVES AS THE OPENING DEVICE



A single almond—still in its shell—does double duty as both a unique decoration and a tearing device on the attractive package for the almond confections produced by Golden Valley Almond Growers of Los Angeles. It is stapled to a cord which, in turn, is bound under the sealing band which goes around the closure. By pulling the almond and its cord away from the jar, the seal can be broken.

The simply designed, oval-shaped jars with their easy-to-grip sides are private molds. They are decorated in three colors, using the ACL (applied color labeling) process. Design on the face of the jar (left) is standard for all five flavors. On the back (right) the design and label vary according to the flavor. The candy-coated almonds come with coffee, pineapple and rum flavoring in addition to the mint and cinnamon flavors illustrated.

CREDITS: *Design, Milton Feder, Los Angeles. Jars, Hazel-Atlas Glass Co., Wheeling, W. Va. Bands, Sylvania Div., American Viscose Corp., New York.*

CHRISTMAS STORIES

BOX WITH BULBS THAT LIGHT

Actually illuminated by tiny hidden bulbs, this candy box introduced by Blum's of San Francisco, makers of quality confections, has been named "The Light Before Christmas." Lights powered by tiny batteries concealed behind the lid shine through the box cover. Underneath the lid is a switch and with a flick of a finger, the tree lights up.

The box is made of paperboard and is of the conventional set-up construction. The lid is fitted with insulated copper wire and small amounts of plywood and brass. Special treatment of the cover enables light from the bulbs to shine through.

Moss-gray colored with red trim, the box measures 16 by 11 in. The Christmas tree cut-out is of green felt appliqued to the box and lights up at seven points on the branches and top.

This de luxe candy package contains 3 lbs. of confections and retails for \$14.75.

CREDIT: *Box, Plastic Specialty Co., San Francisco.*



A SET-UP BOX PROVIDES A GIFT SETTING

One of the products in this "Nik-Nax" gift set is a hinged paperboard box similar in construction to that which serves as the outer container. Marketed by Stylecraft, the package contains a small box filled with memo sheets and a small octagon-shaped basket for desk or table use. Both the memo box and the container are set-up boxes with hinged lids. The container is fitted with a die-cut paperboard tray for holding the two items. Cover paper for both the container and the tray is printed in a gray and white herringbone tweed design. The Nik-Nax trade name, in maroon, is distinctively lettered—the "i" being octagon-shaped like the basket and the hyphen designed like the open memo box. Copy on the cover is repeated in the same color on the inside of the lid. One end of the box contains informative copy on the design and color of the product.

CREDITS: *Box, Stylecraft Division of L. Gordon & Son, Inc., Baltimore, Md. Cover paper, A. S. Datz & Son, Inc., Philadelphia.*



Where moisture control is a must they all pick **Pliofilm**

YOU know that to keep dried fruits at their best, it's important to control the moisture content.

That's why so many dried fruit packers are using **Pliofilm** so successfully.

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What the apple wants

Nowhere in the produce field today is there greater interest in pre-packaging than among the apple growers. In many marketings that have been conducted so far, the folding box has been found a particularly successful package for apples. It is not surprising, therefore, that the Folding Paper Box Assn. of America should pay particular attention to apples in the series of packaged-produce marketing tests which it is currently conducting.

The results of the apple survey, which included transparent bags as well as folding window cartons, show that apples packaged in either form will outsell those displayed in bulk by about three to one when offered at the same price. Even with a price differential of nearly 50%, the boxed apples outsold bulk by a 10 to seven margin.

The association concedes, however, that so far as sales appeal alone is concerned, the public shows no significant difference in preference as between folding boxes and transparent bags. Cartons outsold bags by a very slight margin when prices were identical; but when a 2-cent price differential was added to the box, the bag took the lead in sales by the same narrow margin. Indications are that the folding-box appeal to the apple growers will emphasize claims to safer, easier handling and better protection of quality fruit in the box.

The tests do show conclusively the opportunity for increasing apple sales by packaging. When the very substantial advantages of protection and brand identification are considered, the F.P.B.A. says, it becomes apparent that apple growers have a real marketing

BOX USED IN TEST was of folding construction with cellophane window, using 0.024 board. When sold at same price, it outstripped both bagged and bulk apples, but with a 2-cent advantage acetate bags came out slightly ahead.



TESTS SHOW THAT PACKAGED APPLES WILL

OUTSELL BULK EVERY TIME, WHETHER BAG

OR BOX IS USED—AND AT PRICE PREMIUM

opportunity. The volume of apples produced annually in the United States is tremendous and box manufacturers are urged to give this potential market very serious study.

The association's tests were conducted in East Lansing, Mich., in cooperation with Michigan State College of Horticulture.

Top-quality Winesap apples were displayed—in bulk, in transparent bags and in window cartons. The test was so arranged that none of the three received any preferred position or extra display space. All sales were from a refrigerated cabinet at 37 deg. F. and a relative humidity of 80%. All sales were made by self service.

Chart I shows the results when all apples were offered at the same price. Obviously, the packaged apples outsold bulk at a three to one ratio, reflecting a very favorable consumer reaction to the convenience and attractiveness of packaging. In this test, it will be noted, cartons outsold bags very slightly.

Chart II shows the results after a 4-cent price differential had been added to the carton and 2 cents to the bag. The bulk price remained at 9 cents per pound. Here the bulk apples sold much more rapidly, and the bags and cartons exactly reversed their performance, selling 300 and 287 lbs., respectively. Bulk sales still trailed at 218 lbs.

Both tests were concluded at the point at which any one group was completely sold.

The second chart indicates, the F.P.B.A. points out, demand for packaged apples is so great that consumers will pay substantial differentials over bulk.

The F.P.B.A. report contains much additional information of interest to apple growers and packagers.

Although the U. S. apple crop is extremely large, having at one time exceeded 125,000,000 bushels, the potential packaging market must be set at a considerably lower figure since many apples are processed and others are suitable only for sale in bulk. The 1948 crop, which is rated as a light one, is expected to approximate 100,000,000 bushels. Apples are rated an important commercial crop in 25 states, covering all sections of the country except the deep South and the

central plains. The medium-sized apples are the largest sellers and are the ones to which pre-packaging should be directed.

Apples should be stored at temperatures of from 32 to 40 deg. F. and a relative humidity of about 90%. Their temperature should never be permitted to go below 27 deg. F., the freezing point.

The skin of the apple is tough and resistant to the transmission of moisture. Once the skin is broken, however, the fruit deteriorates rapidly. About 15% of the nation's crop is lost annually from bruising. Another major cause of loss is storage scald, which appears to be due to an accumulation of gases derived from the volatile oils in the fruit. Unless there is a good circulation of air around the apples, these oils may accumulate in sufficient quantities to cause brown patches on the skin.

Decay in apples spreads rapidly; one rotten apple does indeed spoil the barrel—or the package. It is, therefore, of extreme importance that only perfect specimens be packaged. Any evidence of bruising, puncture or decay is sufficient reason for rejecting that apple immediately. Wiping is preferable to washing prior to packaging, experience has shown.

Although apples are generally considered a hardy item of produce and are not usually displayed under refrigeration, tests have shown that refrigeration does have a definite effect on shelf life. These studies were conducted in California with the cooperation of West Coast growers and were based on ideal storage conditions without the handling which normally accompanies the marketing of apples. The tests were conducted in cabinets at an average temperature of 37 deg. F. and 80% relative humidity. Each day samples of each type of package, along with samples of bulk apples, were removed from storage, examined for salability and compared with unrefrigerated samples by a board composed of a produce grower and two dealers.

The results showed that refrigeration without packaging added two days ($12\frac{1}{2}\%$) to the salable life of the apples. Packaging of any kind (plus refrigeration) added a day more. Packaged apples without refrigeration began to deteriorate at the same point as the non-packaged, non-refrigerated items, but their rate of decomposition was somewhat slower.

The report concludes that the value of refrigeration in the retail store is questionable, but it is apparent that refrigeration during any extended period of storage prior to display by the grocer is essential.

Packaging both under refrigeration and at room temperature added substantially to the salability of the apples. The non-refrigerated items which had fallen to 50% salability after 21 days without packages were rated 70% in packages.

Respiration, the F.P.B.A. tells its members, is not of primary importance in apple packaging. Therefore, the package should be planned with two criteria: protection against rough handling and sales appeal. Since the big advantage of the folding box in apple packaging is its protective quality, it is of vital impor-

tance, if boxes are used, that board of sufficient caliper to do a real protective job be chosen. The smaller varieties of apples, such as the Democrats, may probably be packed in 0.018 board, while the Delicious and other large types may require at least 0.024. It is very important that the apples be of uniform size and quality, since bruising is accelerated if a variation in size permits shifting within the package. For ordinary-sized apples, six in a package seems to be the optimum quantity, while the extremely large sizes may be packed in smaller amounts.

Since apples are a fairly easy item to package, there is a wide choice in the style of box. A one-piece infold was used in the F.P.B.A. tests and was considered satisfactory. While there should be a large cut-out to give

CHART I—SALES WITH ALL UNITS SAME PRICE

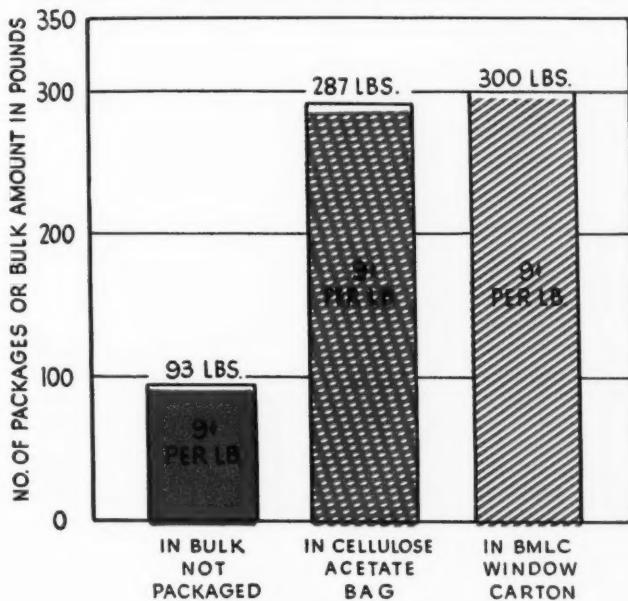
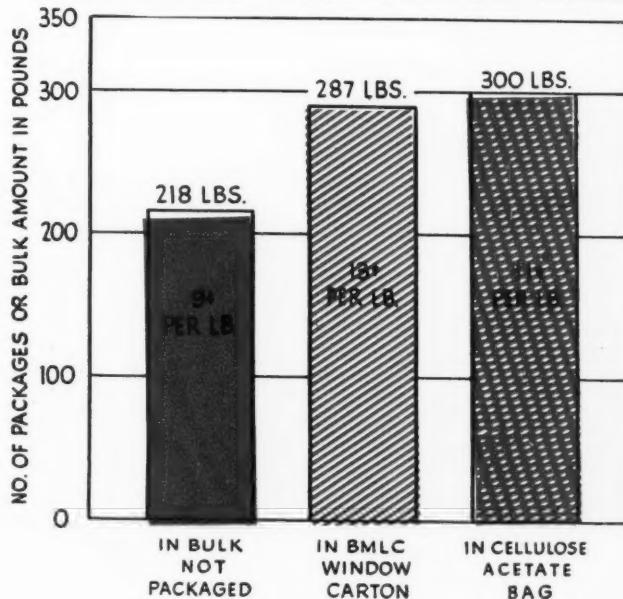


CHART II—SALES WITH PRICE DIFFERENTIALS



good visibility, it is not imperative that a transparent film be used.

If the use of a film is desired and the apples are to be refrigerated, cellulose acetate has the advantage of not becoming cloudy. If a film is used, it is suggested by the association that it be at least No. 300 cellophane or the equivalent caliper in cellulose acetate. The color of the package as well as the size should be chosen to dress up the variety of apples involved, since the colors of the fruit range from deep burgundy red through greens and yellows.

If the apples are to be refrigerated, it is pointed out, the adhesive used should be of a waterproof type; if no

refrigeration is involved, vegetable or cold animal glues will probably be satisfactory.

The following specifications cover the box used in the consumer-acceptance tests which were conducted at East Lansing:

Size	5 by 8 by 3 in., grain long dimension
Material	bleached manila lined chip
Caliper	0.024
Style	Beers infold with tuck cover
Window	3 by 8 in. in main panel and end panel
Film	450-PT cellophane (plain transparent)
Glue	moistureproof

Expandable apple carton with elastic band

The problem of accommodating slightly varying sizes of apples in a snug box pack that will prevent bruising movement has been ingeniously solved for F. Palmer Hart & Associates, apple growers of Red Hook, N. Y., with a unique,



TAPERED BOX holds six apples so snugly they can't fall out. Below, rubber-band construction.



two-piece folding carton that sets up into a tray with expandable, elastic sides.

The elasticity is provided by an ordinary rubber band, which holds the otherwise-free-swinging sides together at the top.

An accompanying photo shows the components of the pack—two flat blanks of conventional boxboard, printed in four colors, and a rubber band. The narrower blank forms the bottom and double-wall end panels; the wider one similarly covers the bottom and forms two double-wall side panels of the box.

The carton manufacturer supplies a simple jig on which the container may be set up at a speed of 20 a minute. The jig has four upright pins and the two blanks are laid on, crosswise, between the pins. The rubber band is stretched around the top of the pins and the four walls are folded up, over and down.

Note that the box toes in sharply at the top, a feature that is emphasized by the fact that the double walls are V-shaped, with the wide section at the top. With the rubber band exerting pressure all around the top, the pack is so snug that it can be held inverted in the hand without any apples falling out. The apples do not need to be absolutely uniform in size and this simplifies grading and packing. The double, cushion walls also are important in helping the carton to conform snugly to the shape of the apples.

Sales increases of as much as 200% have been reported in leading chain stores.

The idea originated with another upper New York State apple grower. Exclusive rights have been taken over by the present carton supplier.¹

CREDIT: *Carton, New Haven Pulp & Board Co., New Haven, Conn.*

Farm co-ops' packaging problems

THEY'VE HAD THEIR HEADACHES IN PRODUCE PRE-PACKAGING,

BUT GOVERNMENT POLL ALSO FINDS MUCH FAVORABLE OPINION

Farmer co-operatives have found their share of knots to untie in their ventures into pre-packaging fruits and vegetables, according to a report just released by the Farm Credit Administration, giving in detail the results of one of the research studies conducted under the new Research & Marketing Act.

On the favorable side, many of the 44 cooperatives reporting some experience in pre-packaging found their problems counterbalanced by the advantages. When asked what they considered the principal advantages, the co-operatives emphasized the tendency for buyers to take home larger quantities of pre-packaged goods, easier and better retailing, getting their brand name into the consumer's kitchen, increased shelf life, more economical distribution and neater retail display.

Heading the list of hard-to-untie kinks so far found by co-operatives were container problems—costs, size and type, visibility, durability and satisfactory protection in transit. For solving such problems the co-operatives said that they would like to know the most economical container for a given commodity, the relative costs of different materials, how appropriate sizes can be standardized, what transparent films give best visibility, how fogging can be overcome, how breakage of containers and failure of seams can be reduced, for which commodities a master container is essential and what is the best and most economical master container.

High labor costs—many of these co-ops were trying pre-packaging with hand labor—also loomed far up on the list of problems. But here several co-ops reported progress. In Texas, for example, several co-operatives pre-packaging fruit were using labor-saving equipment to cut down handling. These groups estimated they could pay for this equipment in a couple of years by cutting down hand labor and speeding up output. They wanted to know how labor efficiency could be increased, what short cuts could be taken, how to eliminate bottle-necks and how far machinery could reduce labor costs.

Co-operatives see trouble ahead, according to the report, unless a

high quality pack goes to the consumer. In spite of this knowledge, some of the co-ops admitted they were doing the opposite. To help counteract this tendency, co-ops would like to get some answers on how pre-packers can be persuaded to maintain rigid quality standards, what grading inspection could be set up and what can be done to reduce product shrinking and decay.

The co-operatives also felt the development of appropriate conveyors, vegetable washers, graders, packaging machinery, closing machines and other mechanical equipment for fruit and vegetable pre-packaging offered wide fields for study.

The number of fruit and vegetable co-ops putting their produce into consumer-sized packages has increased more rapidly during the past two years than in any previous period, the report indicated. Citrus, white potato and apple associations led the list of the 44 co-ops reporting on pre-packaging at the shipping point.

Not all of the associations had found pre-packaging profitable. Approximately one out of six had discontinued it after a trial period, giving high labor and container costs as the chief causes. However, about 20 additional co-ops indicated that they were ready to start pre-packaging when and if prospective returns justify anticipated costs.

MESH BAGS, adaptable to mass display in non-refrigerated stores, are currently popular with farm co-operatives shipping white potatoes, apples and citrus fruits. These three items lead in pre-packaging at shipping point.



Heat-sealed deal

An innovation in packaging "deal" combinations is incorporated in the special one-cent-sale Jell-O package used by General Foods Corp. to introduce its new Jell-O rice pudding. By heat sealing an inexpensive, printed U-board around the top, back and bottom of three regular-sized Jell-O boxes, a single consolidated unit is made which is durable and easy to handle, ship and display. The new rice pudding flavor sells with two other cartons of different flavored pudding mixes for only one penny more than the usual price for two boxes.

General Foods packaging men say the new combination package is "the most successful deal pack we ever had"—praise that is due largely to this first use of a new type of heat-sealing adhesive which is pre-coated on the U-board and simply heated to bind the boxes and tray inseparably together. The thermoplastic adhesive has been under development by one of the largest adhesive manufacturers for about 15 years and is just now being introduced. It was made available to General Foods ahead of general announcement because of special problems in packaging the Jell-O deal.

Actually, holding together the products comprising a deal is the basic packaging requirement. Banding the packages together may be sufficient; in other cases a specially designed tray or sleeve is used, often with a band or overwrap. The feature of the new Jell-O deal package is that it satisfies this essential keeping-together quality with outstanding success at a low cost.

The deal is superlatively planned for grocery merchandising. The main weakness of banding is always the chance that the band may get torn off in handling or that it may slip off or be taken off deliberately by a

customer wanting a single package. For the jumble display—one of the most effective merchandising procedures in grocery selling—banded deals are thus difficult to use successfully. With the consolidated three-box Jell-O package, big jumble displays can safely be set up at any one of the store's hot spots.

Different combinations of the regular Jell-O flavors are packed with the new rice pudding. The shopper selects the package with the flavors that most appeal to her. If the jumble is not used, regular shelf displays can be made attractive and interesting by alternating the fronts and backs of the deal packages, letting the back of the tray with its bright red, white and green colors act as a shelf poster.

Application of all these advantages in the Jell-O combination package was almost stymied by the discouraging results of the first packaging runs with the new trays on heat-sealing equipment. The first thermoplastic adhesive tried didn't create a strong, dependable bond. Also, heat resistance of the paperboard necessitated the use of 400 deg. F. temperatures and this resulted in smearing the inks and buckling the stock. The supplier of the lithographed trays and the finishing company which coated the trays with the adhesive, after studying these difficulties, suggested that perhaps a new type of thermoplastic adhesive about which they knew but hadn't tried might be more suitable. The adhesive manufacturer agreed to release the new product from its developmental status for use.

The new adhesive is a resin-emulsion type; it is said to be self-drying and non-blocking, even with relatively low activating temperatures. It can be applied by means of existing roller-coating machinery and equip-

DISPLAY FACE of U-board calls shopper's attention to the special offer with bright red and green colors and provides space for dealer price marking.



JELL-O'S THREE-PACKAGE COMBINATION INTRODUCING RICE PUDDING MARKS

FIRST USE OF NEW TYPE OF THERMOPLASTIC ADHESIVE, COATED ON BOARD

ment now being used by lithographers and finishers.

When this new heat-sealing adhesive was applied to the Jell-O trays and then tested in normal packaging production lines in the plant, it was discovered that all of the trouble was not with the adhesive itself, but that part was due to its method of application to the trays. The emulsion was delivered to the finisher in 55-gal. drums. Since solids in all emulsions have a tendency to settle at the bottom, thorough mixing is required before the adhesive is of the proper consistency to handle in the applying machine. A too-thin application tended to soak into the board stock, leaving virtually no surface to be activated by the heat application. A heavier coating could be applied, but it would not dry at the 160-deg. F. temperature maintained in the 35-ft. drying tunnel used by the finisher.

The solution finally was found in applying one coat, drying it and then running the sheet through again, giving it a second coat of thermoplastic adhesive. The margin of safety thus provided does, it is said, insure an inseparable bond at average production speed and average heating temperature at the Jell-O plant.

When the double-coated trays were put through the production line the results were much better. The tray was tested on a semi-automatic heat-sealing machine which sealed it to the top and bottom and back of the boxes simultaneously. Sealing was tested at various temperatures and with pyrometer readings it was found that a temperature somewhat less than 100 deg. F. at the surface was adequate to activate the thermoplastic in the short time interval of four seconds average per tray. Special rheostats were incorporated into the sealing machines which regulated the heating

unit's temperature within the desired temperature range.

With the method of applying the adhesive to the stock and the activation point definitely settled, still another problem arose. Although there was a good bond between the tray and the Jell-O individual cartons, work scuffing and smears were very pronounced on the heavy-flow varnish coat used to finish the inked surface of the trays. Serious as this might be, there was no time to make extensive changes on the sealing machines and a hand-sealing operation was obviously too costly for the deal.

Packaging engineers at the General Foods plant remembered that a similar problem has been encountered in heat sealing the lacquered, gusset bags in which the pudding mixes are packaged. When that problem had arisen, its solution was found in covering the heating elements with Teflon (tetrafluoroethylene), the new plastic which has the remarkable quality that practically nothing sticks to it. Strips 0.010 thick were applied to the heating units by screws. No scuffing or ink smudging of the trays could be observed in the deals turned out then from the machines and the final packaging procedure was established. Work simplification was then inaugurated for the correct positioning of work flow and operators of the heat-sealing machines and the Jell-O deal package hit full production at the General Foods plant.

CREDITS: Thermoplastic adhesive, "Heat-Lok," by National Adhesives, New York. Trays lithographed by U. S. Printing & Lithograph Co., Cincinnati, Ohio, and finished by Perfect Finishing Co., Inc., New York. Heat-sealing machines, Miller Wrapping & Sealing Co., Chicago. Teflon by E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.



OPEN SIDE shows three regular packages, with the 1-cent overprint on rice pudding. Offer also appears on top of U-board, heat sealed on three sides.

MP MODERN PACKAGING PAGEANT



1 Two cans of Swift's household cleanser and a plastic holder packaged in a die-cut paperboard tray provide an attractive impulse premium deal. The polystyrene holder has a cellophane wrap printed in the same design as the cans. Front panel of the tray calls attention to the special offer and prominently displays price of the deal. Polystyrene, Dow Chemical Co.'s Styron.

2 An open-end envelope with printed cellophane front and glassine back for Elrene's Comark vinyl plastic tablecloths permits visibility of product, provides a place for identification and instructions without the use of an insert. The open end allows for shopper inspection. The glassine back saves on cost. The use of non-moisture-proof cellophane is said to prevent sticking. Envelope, Comet Envelope & Paper Co., Inc., New York.

3 Promotion of this series of carton-packaged Hygrade canned meats, introduced in key Eastern and Mid-western cities last month as a gift item, is now being geared for year-around selling. Purpose of these "Portable Pantry," "Piggy Bank" and "Breakfasteer" cartons is to acquaint customers with the products and multiply points-of-sale purchases. The colorful packages, breaking the monotony of rows of canned goods, attract the shopper's eye. Cartons, United Board & Carton Corp., New York.

4 This 2-qt. covered ceramic baking dish serves as a practical re-use container for a gift assortment of Durkee Famous Foods. Eight different Durkee products in their regular-sized packages nest in shredded cellophane inside the dish. Of French-type ovenware, the buff and brown pot is glazed inside with the exterior unglazed. This gift idea was developed as a Christmas package for use by the company for its associates, suppliers, etc. Container, Robinson Clay Product Co., New York.

5 In modernizing the packaging for Kenton Pharmacal Co.'s Brownatone hair coloring, both container shape and surface design have been brought up to date to improve shelf appeal and to give the product cosmetic appearance. New torso-shaped bottles of private-mold flint glass required installation of new labeling machines. Design, Lippincott & Margulies, Inc., New York. Cartons and labels, U. S. Printing & Lithograph Co., Cincinnati. Bottles, Fairmount Glass Works, Inc., Indianapolis. Caps, Armstrong Cork Co., Lancaster, Pa. Labeler, New Jersey Machine Corp., Hoboken, N. J.



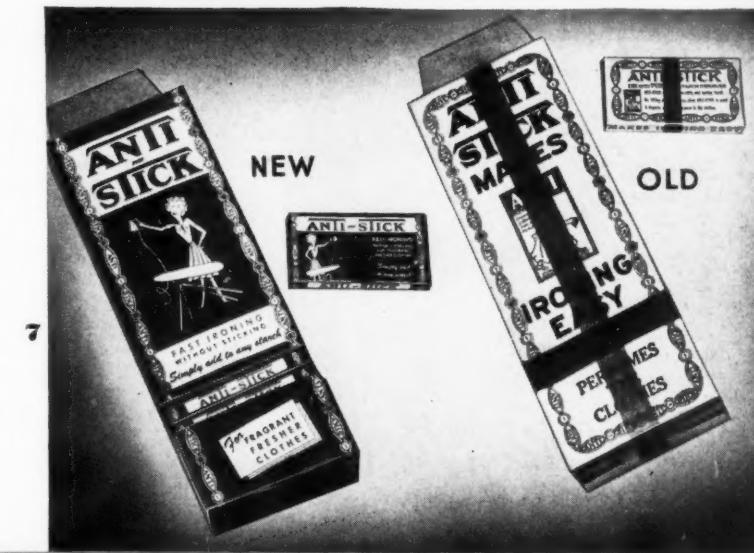
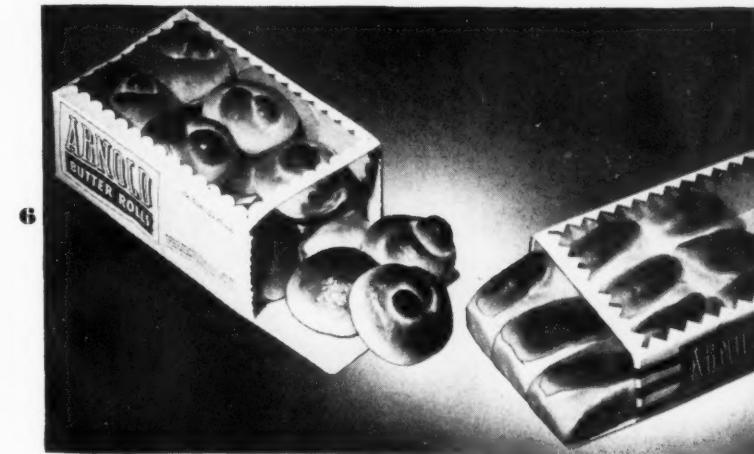
Greatly increased sales in selected test areas, with no advertising or special promotion, prompted Arnold Bakers, Inc., to convert their entire distribution of Butter Rolls and Butter Parkers to this new tray-type package. The oblong paperboard box is wrapped in printed cellophane with the product visible through the transparent top. The Arnold logotype is prominently displayed on side and end panels. Trays, Marathon Corp., Menasha, Wis. Printed cellophane wraps, Milprint, Inc., Milwaukee.

The first package design change for Anti-Stick ironing aid since the product was introduced 46 years ago was made to arrest decline in sales and to bring the product back into prominence in grocery stores. The new packages retain the identifying red stripe and border design and introduce a new trademark figure. New dispenser carton and individual packages are similarly designed. Cartons, Universal Folding Box Co., Inc., Hoboken, N. J. Drawings, B. Tockar Studios, New York.

An aerosol-type metal can with button release is used as the self-dispensing package for Vamoos, a new liquid room deodorant made by Vamoos Products, Inc. It has been trademarked the "Atomizer" container to suggest its use to consumers. Label design instantly suggests product use by quick-paced copy and line drawing. Label color distinguishes the three types of product—unscented, pine and lavender. Can, Continental Can Co., Inc., New York.

Promoted as having "quart size economy with pint size convenience," the new Functional Fifth commercial bottle of Penit ink was developed as the result of research which indicated that conventional quart bottles were too bulky for convenient handling in offices. Of light-weight, strong glass, it saves $\frac{3}{4}$ lb. of lifting. Deep vertical grooves provide grip for pouring. Bottle, Owens-Illinois Glass Co., Toledo. Pouring spout and cap, A. H. Wirz, Inc., Chester, Pa. Label, Shuman Labels, Chicago. Carton, Carton Craftsmen, Inc., Chicago.

Mane Sausage & Provision Co. of Cincinnati uses a printed Pliofilm pouch for a test-market package containing 1 lb. of kraut and four or six wieners. The pouch presents an appealing visual package that is said to hold the freshness and flavor of the product. Pouch made by Shellmar Products Corp., Mt. Vernon, Ohio, of Goodyear Tire & Rubber Co.'s Pliofilm.





11

11 New labels for Charbert's Breathless and The French Touch colognes are chemically treated to make them impervious to alcohol. Printed in gold and black, the alcohol-proof labels harmonize with the decorative bottle caps. Labels, Richard M. Krause, Inc., New York. Caps, Richford Corp., New York. Bottles, W. Braun Co., Chicago.



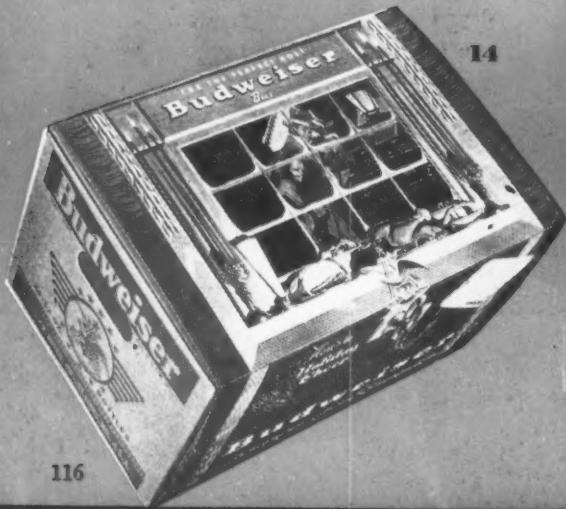
12

12 This self-dispensing, die-cut carton for six Pliofilm link packages of Kaukauna Klub cheese helps reduce damaged and shopworn packages by eliminating repeated handlings by customers and dealers. A special type of coating is used on the carton to withstand the effects of moisture and low temperatures in refrigerated cases. The blue and white printed cartons are made of 0.018 solid bleached kraft from virgin pulp to avoid contaminating odors. Cartons, Gaylord Container Corp., St. Louis, Mo. Link packages, Milprint, Inc., Milwaukee, using Goodyear Pliofilm.



13

13 A re-usable yarn box made of transparent cellulose acetate keeps Oregon Worsted Co.'s 4-oz. balls of baby wool fresh, clean and dust free. The paper label inside the cylindrical container is removable and instructions on the bottom describe how to use the box as a yarn container while knitting. Box, Geo. V. Clark Co., Inc., Astoria, N. Y., using Monsanto Vuepak. Labels, New York Printing Co., New York.



14

14 Cases of Budweiser beer were promoted as gift merchandise during the holidays by the use of colorful wrap-around labels. The wrap-arounds were suitable for fitting over shipping cartons for either cans or bottles. The wrappers, printed with a window scene and to represent a red velvet-draped chest complete with key-plate, fit over the top and sides only, leaving the handling ends uncovered. They could be removed after the holiday by merely slipping them off. Wraps, Wolff Printing Co., Southwest Div., Western Printing & Lithographing Co., St. Louis, Mo.



15

15 An ingenious case holding a lipstick and perfume atomizer has been introduced by the House of Tangie. Called Glamourizer, the case conceals a new type of perfume atomizer in one end and a regular \$1-size lipstick in the other. The case is made of etched metal, gold colored, and is slightly larger than a regular lipstick case. It retails for \$1.50 plus tax.

16

16 The one-trip, non-returnable bottle has made its appearance on the East Coast in the soft drink industry. Nedick's Inc., New York, is using a family-sized (28-oz.) bottle for its orange drink. The new bottle is expected to replace the six-bottle carton to some extent and company officials anticipate that it will account for about 20% of Nedick's total sales volume. The name is molded in the shoulder of the bottle plus the identification offered by the paper labels. Bottle, Metro Glass Co., Jersey City, N. J. Caps, Crown Cork & Seal Co., Baltimore; Consolidated Cork Corp., Brooklyn; Mundet Cork Corp., N. Bergen, N. J., and Areo Crown Co., Brooklyn. Labels, Phillips Lithographing Co., Milwaukee.

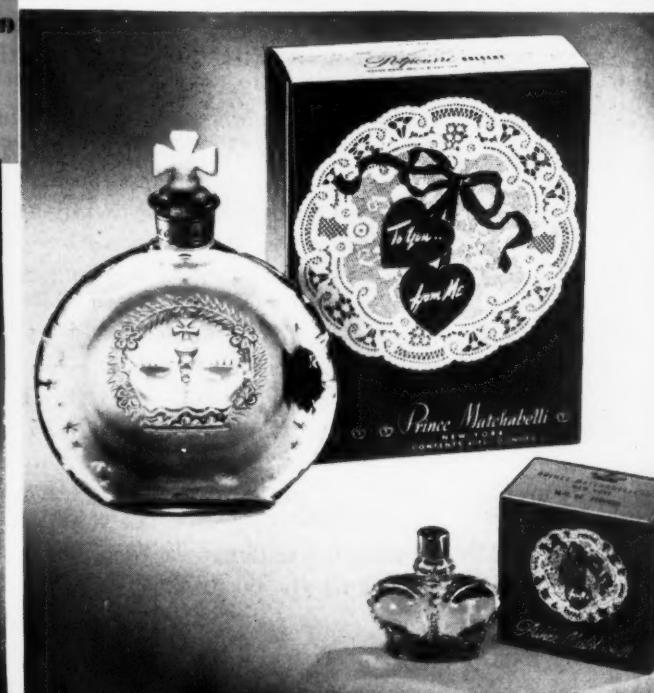
17 With Birds Eye-Snider Div. of General Foods starting to distribute frozen corn on the cob nationally, a special package redesign has been done to give the product greater pictorial identity and appetite appeal. The new in-fold, telescope carton, which holds two ears, now features a full-color reproduction, printed directly on the carton, of the tasty ears dripping with butter on a platter. Design, Frank Gianninoto & Associates, New York. Carton, Marathon Corp., Menasha, Wis.

18 To increase sales through multiple-unit pricing and to take advantage of the fact that jelly is an item purchased on impulse, D. B. Scully Co. has brought out this convenient "carry-home" carton with three 12-oz. glasses of jelly. The die-cut carton lets housewives see the assorted flavors and makes it simple for shoppers to pick up and carry. Cartons, Aee Carton Corp., Chicago. Glass tumblers and caps, Anchor Hocking Glass Corp., Lancaster, Ohio. Labels, Gugler Lithographic Co., Milwaukee.

19 All the sentiment of an old-fashioned valentine is captured in the beribboned and lacy decoration printed on the sleeve used by Prince Matchabelli as a special package for the company's perfumes and colognes for St. Valentine's Day gifts. Sleeve, Warner Bros. Co., Bridgeport, Conn.

20 The trend to emphasize brand identity and to facilitate the handling of goods, particularly wearing apparel, by individually packaging the article is steadily growing. June Porter sweaters are now put into open-end envelopes with front face of printed cellophane. The company reports a material decrease in soilage during display. Bags, Milprint, Inc., Milwaukee.

MP MODERN PACKAGING PAGEANT





MOLDED in the shape of traditionally cut many-faceted diamond, the container is mounted on black plastic base, square to fit set-up paperboard box.

HINGED LID is opened to reveal ring held securely in place by means of slotted clips fashioned in bottom section of box.

A gem-like setting

NEW ACRYLIC "DIAMOND" PACKAGE DRAMATIZES

RING AND GIVES STRONG BRAND IDENTIFICATION

Much attention has been paid during the last few years to improved packaging of jewelry. More and more, the makers of both quality and novelty lines have realized the selling power of dramatizing the presentation to the gift occasion—the graduation, the anniversary, the engagement—offering not just a conventional box to house the item, but something that will symbolize the occasion.

Original indeed, then, is the new gift package for a diamond ring just introduced by The Prism-Lite Division of Schless-Harwood Co., Inc., New York. The container itself appears to be a huge faceted diamond, inside which is a platform to hold a diamond engagement ring which may be seen through the transparent container.

This huge traditionally shaped "diamond" package is molded of clear acrylic plastic in two places, which are then hinged together with a metal pin. The base is fashioned with slotted clips to hold the ring upright so that the gleaming lights of the real diamond show through the acrylic material. There is just enough "give" in the plastic to hold the ring tightly.

The diamond-shaped container is mounted in a molded base of black acrylic on which the trade name



of the diamond ring, "Prism-Lite," is reproduced in gold. This black base, square at the bottom, is made just the right size to fit into the base of a square set-up paperboard box, thereby providing an interesting black platform. This method of presentation also gets away from the traditional use of velvet linings, so long associated with ring boxes. The company believes this to be the first diamond ring package that uses no velvet or similar lining.

CREDITS: Plastic container molded by General Electric Co., Plastic Division, Pittsfield, Mass., of Rohm & Haas Plexiglas. Set-up box, F. N. Burt Co., Inc., Buffalo, N. Y.

Lock-tab for frozen foods

WAXED CARTON IS SET UP AND CLOSED ON FULLY AUTOMATIC EQUIPMENT
IN COST-CUTTING, STRAIGHT-LINE OPERATION

Fully automatic equipment for forming and closing a new type of consumer-sized frozen food carton has been put through its first commercial test during the past season at the Monroe, Wash., plant of PictSweet Foods, Inc. The waxed carton is set up and locked entirely without the use of glue. The ends and lid lock through pre-cut slits. The result is a rigid container ready for overwrap. Used with pre-frozen vegetables, the carton requires no liner.

Economies of operation appear to make this a development of considerable interest to the frozen food industry, searching as the industry is for every possible means of cutting production costs.

Cartons are turned out at a speed of about 75 a minute. In conjunction with automatic filling machinery for free-flowing items like peas and with automatic overwrapping machinery, the new equipment makes the whole packing line automatic. Substantial savings result from reduction of labor in the packing line, from the lower cost of cartons and from the elimination of a liner.

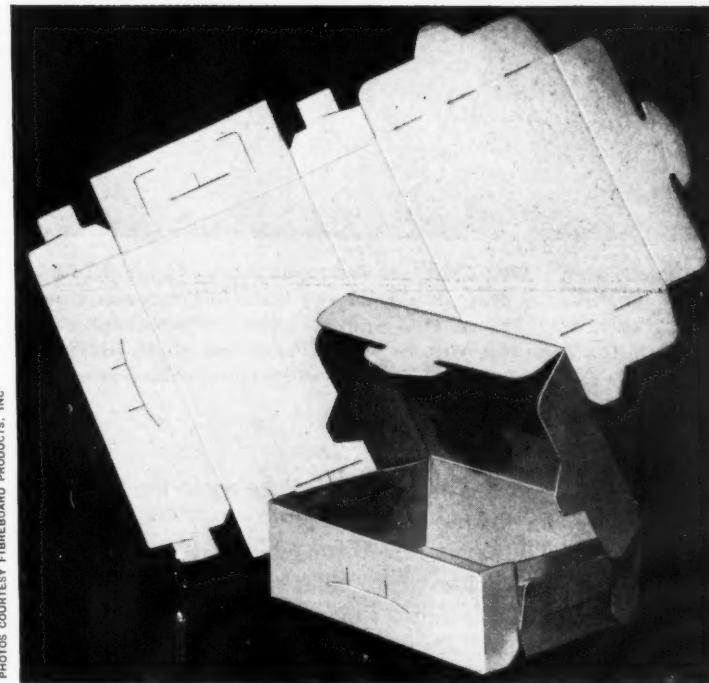
PictSweet has used the equipment chiefly for peas, but it also has run mixed peas and carrots and some broccoli. In the first season, PictSweet's Monroe plant handled close to 2,000,000 packages on the equipment. The company expects to install additional machines at other of its plants for use during the coming season.

The equipment is trade-named Auto-Pack. It consists of two machines. One sets up the packages and moves them out on an endless conveyor system to be filled. The second, the closure machine or lidder, closes and locks the lid on the filled package.

The board for this container is of white patent-coated solid manila, made of virgin pulp. It is of 16 gauge and weighs 65 lbs. to the thousand square feet. The board is die stamped at the converting mill to the exact shape for the finished box; at the same time, slits are cut for the lock joints and the box is scored for folding into the assembled position. After all cutting and scoring is completed, the blank is treated with high gloss, cold paraffin and shipped to the packing plant.

The set-up machine used at PictSweet stands 6 ft. high and is 3 ft. square. Essentially it consists of a plunger which forces the blank into a square cylinder or forming die. There are two electric motors, one to operate the plunger and the other to drive a vacuum pump.

Blanks are stacked on an elevator platform at the



PHOTOS COURTESY FIBREBOARD PRODUCTS, INC.

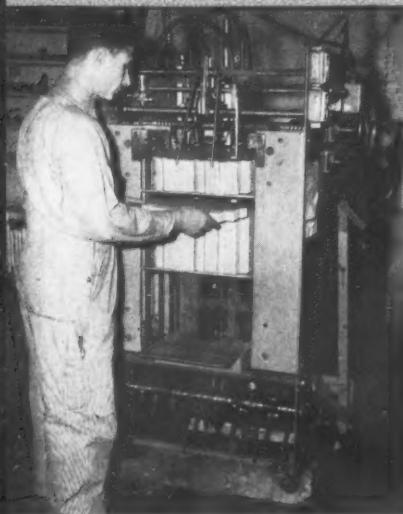
UNUSUALLY RIGID BOX results from lock-tab construction, shown here in blank and set up. Stock is cold waxed and additional water-vapor protection is provided by the use of overwrap.

front of the machine. Two suction grips pick up the top blank in the stack and draw it forward into a set of rollers. The rollers carry the blank into position over the forming die, which is of the same shape as the bottom of the finished box. The plunger drives the blank into the die. This shapes the carton and at the same time slides two locking tabs into each end to form and hold the body.

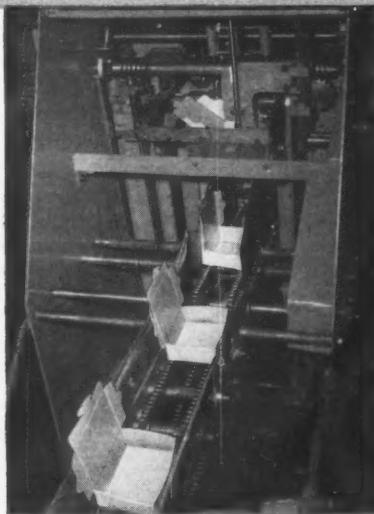
The side flaps of the top panel or lid are pre-broken to assist in the later lidding. The package is then carried out on a conveyor for filling, the box completely formed and the lid standing straight up.

When filled, the package rides backwards on the conveyor belt into the closure machine. First it passes under a rigid wire that forces the lid down momentarily to pre-break the hinge. Then the package enters the closure machine itself. Essentially this machine is a forming tube. The shape and dimensions of the tube are set by a pair of rigid parallel rods at each end of the container. Where the package enters the machine, the rods are set wide like the mouth of a

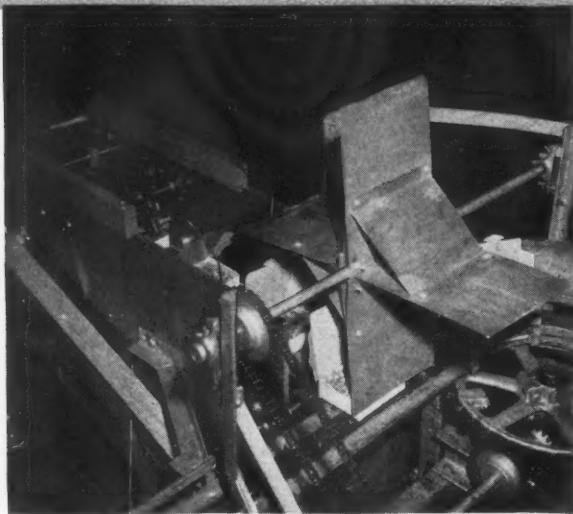
New, fully automatic equipment



BLANKS ARE FED into set-up machine from double-elevator arrangement that maintains constant supply level. Suction cups pick up blanks.



BLANKS LEAVE forming machine on conveyor line, ready for filling. Photograph shows, at top, a carton blank just being pushed by the machine into forming die.



IMPROVISED PADDLE WHEEL, synchronized with operation, diverts filled cartons from filler to another line which takes them through closing machine. This device was necessary at PictSweet since space did not permit straight-line set-up.

funnel. At the small end they are set to the exact size of the closed Auto-Pack box.

As the box rides into the machine, the rods force the lid down and close the side flaps of the lid. Then, just as the lid and flaps reach the closed position, the mechanical tuckers go to work. The main tucker for the front tab is a locking head revolving on a continuous chain. The head comes forward with a nodding action and then tucks the flap through a die-cut slit.

At the same moment, the flaps from the side of the lid are being locked into the ends of the box. Here a small revolving drum, with a protruding arm, turns at each end of the package and tucks the tab from the side of the lid into the end of the box.

The box is now closed and as the front tab is of lock design, the lid cannot open. To assure a complete locking of the front panel and to square up the package, the box passes under a floating wheel while still moving between the parallel bars of the forming tube. The wheel has about a quarter-inch play on its axle. If the load is high, the weight of the wheel squares the load and completes the locking operation.

At the PictSweet plant, the conveyor line carries the package through one added piece of mechanism—a shuffle feeder for the overwrap. This equipment was developed at the plant by Superintendent George Butler. It eliminates one person who normally transfers the boxes by hand onto the conveyor belt for the overwrap machine.

From the lidder, the packages move through a pair of side compression belts. An overhead pusher advances the forward package onto a moving shelf. The shelf slides ahead the length of a package, drops the package on a pair of side shears and retracts. At the

proper moment the shears withdraw and drop the package onto the transport chain that feeds the overwrap machine. The shuffle feeder is timed with the overwrapper.

The major saving in the new equipment is in labor. Some years ago when the packing plant used a container that came in a flat blank and was formed and lidded by hand, 12 persons were required to operate at the speed of the present equipment. Later, when the plant changed to a conventional glued container that came folded but was opened and lidded by hand, eight persons were required. Auto-Pack does this work now with only two women inspectors, a saving of 60 to 70% in labor cost. At PictSweet, the set-up, filling and lidding line is U-shaped and the attendant on the overwrapper also feeds the set-up machine with blank cartons.

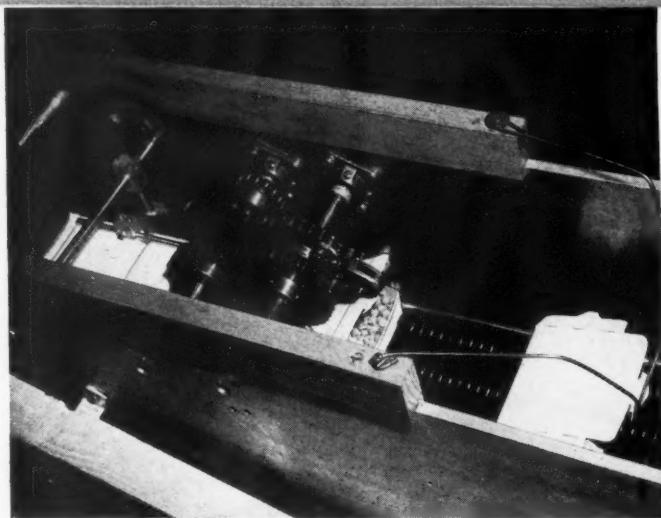
There is an important saving also in the cost of containers, chiefly as the result of the elimination of the entire gluing operation and the extra handling that operation caused. This saving amounts to an estimated 20 to 30%.

PictSweet also reports an unestimated saving in freight and storage. As flat blanks pack tighter than prefolded glued containers, more can be shipped in a carload, handling is faster and less space is required in plant storage.

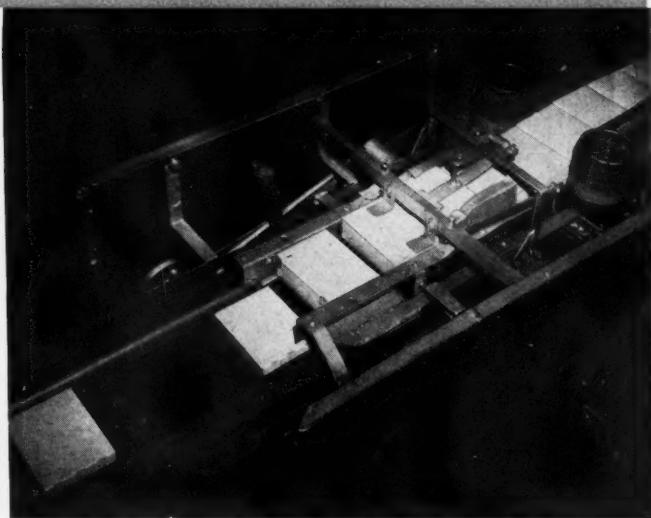
Mr. Butler estimates that it cost him \$100 a day when the supplier recently took the machine out of the plant temporarily to measure and check for production models, meaning that returning to the old containers and methods boosted his operating costs that much.

One of the features of the set-up equipment is the loading mechanism that permits uninterrupted oper-

has been proven on 2,000,000 packages



CLOSING MACHINE, with packages moving from right to left. Wire baffle has just broken lid over on package at right, while in the center a lid flap is being lowered and locked in front slot of the base. Simultaneously, two revolving side arms lock the side flaps of the carton.



SHUFFLE FEEDER, developed by PictSweet's superintendent, George Butler, drops filled and closed packages, coming from closing machine at right, in perfect timing onto chain conveyor feed of the overwrap machine. This feeding has always previously been a hand operation.

ation. Suction grips feed the machine, as described, from the top of a stack of container blanks. The top of the pile is kept at a constant level by the automatic elevator. Beneath the elevator platform is a reserve platform. Here the operator stacks additional blanks. When the top platform is nearly empty, the lower platform is raised and the floor of the top platform is pulled out, consolidating the pile with the reserve. The suction feeder has enough flexibility to keep the operation running without a break.

Cold-waxed board is used because it is waterproof, makes a more rigid container and has greater water-vapor resistance. While the outer wrap of cellophane or waxed paper is depended on for the major burden of water-vapor control, the heavy coating of the cold-waxed board retards moisture loss in spite of the slits of the locking tabs, according to PictSweet officials.

The smooth, glossy coating of a cold wax also makes for a cleaner carton, permitting an operator to wipe off any stain that may be picked up along the way.

Such minute amounts of wax as may be scraped off as the carton passes through the machine are blown out with compressed air at the end of a day's run. For much of the past season, PictSweet operated the equipment on two shifts.

One basic requirement of the operation was a wax that would not block or stick the container blanks together during shipment. For this, special types of wax were developed. To assure complete separation at the time of loading the machine, the operator also fans the blanks.

The Auto-Pack box is said to be more rigid than its glued counterpart. One reason is the fact that the lid of the box is locked shut and there is therefore

less "twist" in the box. The locked ends are also firm, providing adequate support for the pressure of heat-sealing equipment in the overwrapper and thus helping to provide a tight moistureproof seal. The carton does not depend on the contents for rigidity or solidity.

Being compact, the set-up machine and lidder make for a short packing line. Allowing 3 ft. for the set-up machine and 3½ ft. for the lidder, the entire packing line—from set-up to filler and overwrapper—may take only 35 to 40 feet.

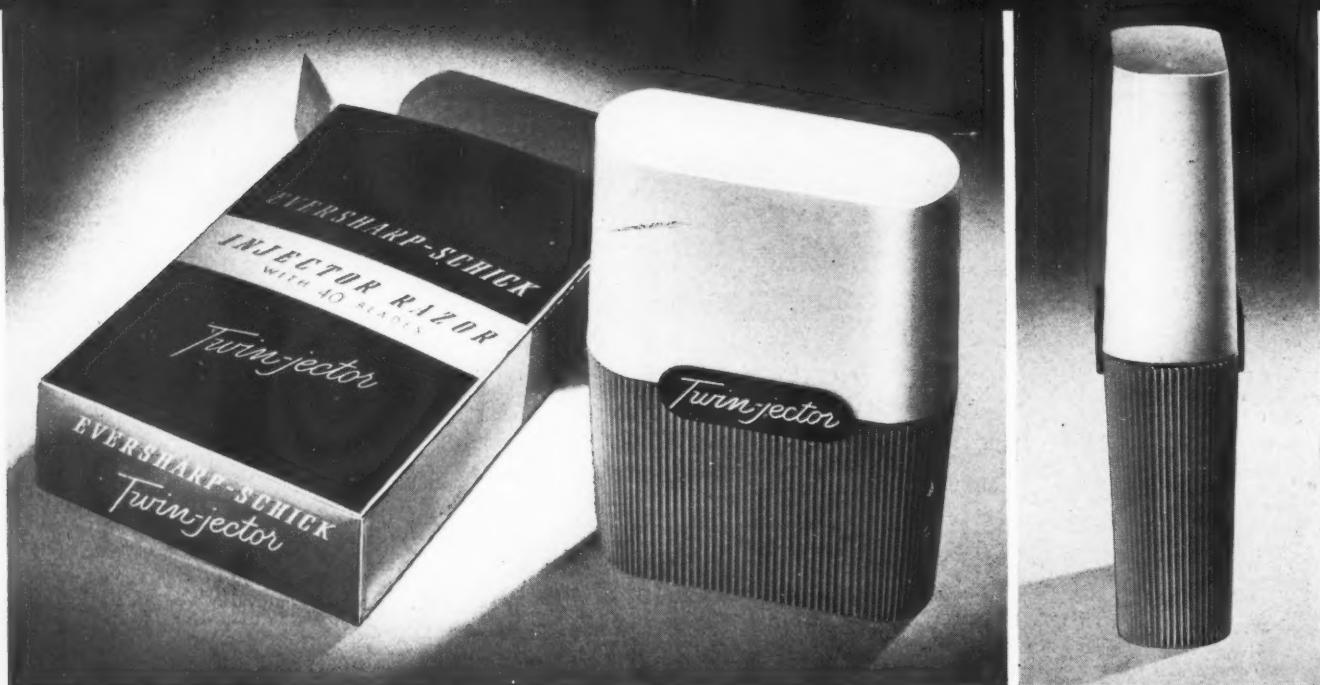
Both set-up and closure machines are mounted on wheels and can be moved quickly from free-flowing lines to hand-operated lines. It is expected that in combination with cellophane bagging equipment, the box can be used for fruits and berries packed in syrup.

PictSweet operated the new equipment at a speed of 70 and then 75 cartons a minute. The manufacturer states that the speed of the set-up equipment can be stepped up to 80 or 85 cartons a minute. The lidder will operate faster, but the speed of both machines is tied automatically to that of the overwrapper.

While the primary commercial application has been with consumer-sized packages, equipment and boxes have been produced in the 2½-lb. institutional size and are now being tested.

The Auto-Pack equipment was designed and developed for this pilot run by the supplier of the cartons. It is expected that commercial manufacture of the equipment will be undertaken by one of the larger West Coast machinery companies, but arrangements have not yet been completed.

CREDIT: Auto-Pack equipment developed and cartons supplied by Fibreboard Products, Inc., San Francisco.



PLEASING SHAPE and grip; unusual white, gray and maroon colors, distinguish razor case molded of polystyrene. Razor and 40 blades sell for \$1.95, come in foil-laminated folding carton illustrated at left.

Giving the razor an edge

EVERSHARP-SCHICK TWIN-JECTOR ACQUIRES UNUSUAL APPEAL

WITH BEAUTIFULLY DESIGNED PERMANENT CASE MOLDED OF PLASTICS

Package distinctiveness is always a dollar-and-cents asset in merchandising a quality product. The new look, the different shape, the unusual material will often lift the product out of its competitive level and serve as a real sales stimulant. Eversharp, Inc., New York, currently offers a double demonstration of this point in two new razor packages that hit the market just in time for Christmas gift buying, although both packages are designed for year-around selling.

The well known pen and pencil manufacturers, who got into the razor business in 1945 through the purchase of Schick, have packaged the Eversharp-Schick Twin-jector men's razor—a strictly utilitarian article—in a molded plastic container which, if seen without any identification, could easily be mistaken for a swank, new jewelry case. Made of polystyrene in three colors, the handy, modern-styled, two-piece slip case is designed to hold one razor and two 20-blade injectors. The new package—retailing for \$1.95—is a distinct departure from the conventional packages which the industry has used.

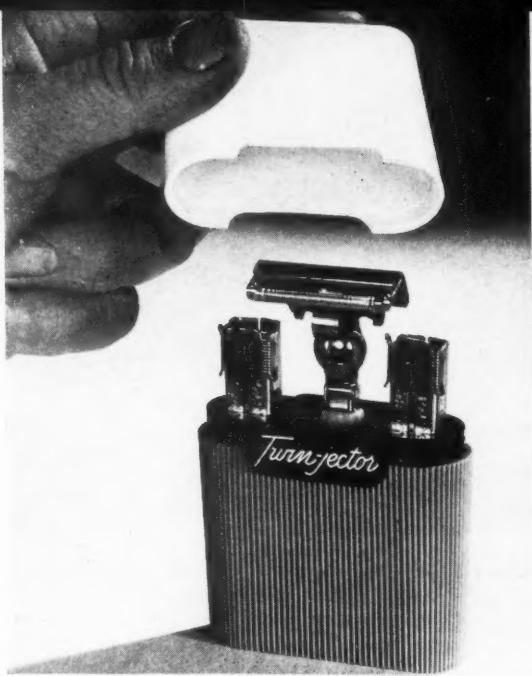
Perhaps the idea for this jewelry-type case for the men's razor was stimulated by the success Eversharp-Schick has had with its ladies' Fashion Razor, introduced a year ago (MODERN PACKAGING, Dec., 1947, p. 132). To augment the success of this first ladies'

razor Eversharp has now brought out The Deb—a new, smaller model packaged in a set-up paperboard box decorated to match the Fashion Razor. The company has capitalized on the huge, relatively undeveloped, feminine market for razors with the petite Deb in an all-butyrate housing and the Fashion Razor with a butyrate and metal casing—a part of the razor itself—which are so attractive that women consider the razors not as tools, but as dressing table accessories. The package for the razor is a box given the high style look associated with cosmetics and merchandised as a cosmetic item—sold in department and drug store cosmetic counters, advertised in fashion magazines, promoted as a gift item.

The plastic package

The Twin-jector plastic package was definitely planned as one which would be useful permanently. Flat, compact and durable, the new streamlined container is designed to double as a traveling kit, taking up a minimum of space. The kit can even be slipped into a pocket, being approximately the same size as a pocket tin of smoking tobacco.

The case is also designed so that it stands upright, thus making it a space saver in the crowded bathroom cabinet or dresser drawer. In encouraging the pur-



TWO-PIECE case, intended as permanent holder for razor, is a daily reminder of brand name.

chaser to use the polystyrene container as the razor's permanent holder, Eversharp is hoping that it will serve as a daily reminder of the product's brand name. The top can be used separately for used blades.

Convenience features of the plastic container are expounded in Eversharp's advertisements running in such magazines as *Saturday Evening Post*, *Life*, *Look* and *Collier's* and on the company's radio programs. Ads show the containers both open and closed and refer to them as "the new, handy home-and-traveling kit" and "the handiest container ever made."

The versatility of plastic materials is well known to the company through their use in other products made by Eversharp, including the housing for the Deb and Fashion razors. Because of the large sales volume of Twin-jector, it was felt that the higher cost of polystyrene molded containers could be absorbed and that its definite functional and salable advantages would make any additional cost still worth while.

Considerable thought was given to selecting colors most likely to meet with masculine approval and still keep the fresh, clean look of bathroom accessories. The top half of the case is a gleaming, aseptic white. The base half is medium gray with the oval in the center containing the name in dark maroon.

The unusual surface treatment of the container aids in the effectiveness of its simple design. The top is smooth while the bottom half is vertically fluted. This combination adds design interest to both the eye and the hand. From the practical viewpoint, the fluted base provides a good gripping surface for easy opening. The modified hexagonal shape and the rounded, tapered sides of the two halves of the container are designed to fit the hand comfortably. Absolutely flat top and bottom ends of good proportions give the stand-up feature.

From the functional angle, the plastic container is well designed to protect the razor and injectors during

shipment and any subsequent use as a traveling kit. The base is divided into three compartments into which each piece is separately placed—razor in the center and the two injectors on the sides. The container top has protective interior bracing molded in the sides which fits over the tops of the two injectors, leaving the center space free for the taller razor.

Molding details

Skillful molding of the container parts and their assembly helps to emphasize the utility of the case design. The maroon name oval that is seen on the outside of the closed container is part of the insert which is molded separately and cemented in the gray base. Names are imprinted on the oval by wiping in a white paint solvent. When the snug-fitting cover is removed, it can be seen how this insert piece serves as part of the friction closure. Like the base, the insert is compartmented and its individual openings are precisely scaled in size for holding the razor and injectors without any waste space that would allow unnecessary play; this minimizes the stresses and strains of shipping impact. Rectangular openings for the injectors are positioned so that the injectors can only be inserted in the correct position with the key part down. In the base, at the bottom of the compartment for the razor, there is a molded-in wedge that helps protect the razor handle during shipping by limiting the extent of its vibration.

Quite in keeping with the container's beauty is the folding carton in which individual Twin-jectors are delivered to dealers. They are of aluminum foil laminated to paperboard, printed in four colors—red, black, gold and white—using transparent inks that allow the sparkle of the foil to show through.

The Deb set-up box

The same successful cosmetic package style used on ladies' the first Eversharp razor is repeated for The Deb, which has the same sized (Continued on page 182)

NEW DEB VERSION of Fashion Razor for women uses butyrate in razor housing, is packaged in a set-up paperboard box with blade holder and brush stowed underneath the plush platform.



DISPLAY GALLERY



Wabash-Sylvania's counter dispenser for packaged flashbulbs was designed to promote the sale of this photographic accessory in drug, hardware, cigar, stationery, jewelry and other retail stores. It holds 60 flashbulbs of four different types used with popular-priced flash cameras. Back piece of the display is lithographed in full color. Display, Consolidated Lithographing Corp., Brooklyn.



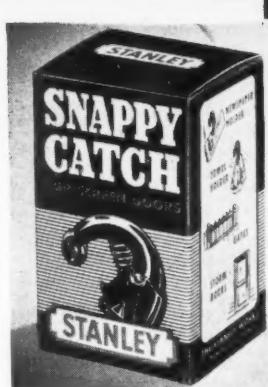
Replacing an expensive hand-made display, this transparent plastic unit for the Rollit ball pen combines eye-catching design, functional value and low cost. The entire display, including the two arms that hold the pen, is injection molded of polystyrene in one unit. No secondary or hand-finishing operations are necessary. Display made by Victory Mfg. Co., Chicago, of Koppers Co. polystyrene.

This new selling unit for Bostitch staplers and boxes of staples is lithographed in five colors on special 90-lb. board and varnish coated. Its grained wood appearance blends well with the newly designed orange, brown and yellow individual boxes. Display, Palmer Associates, New York. Cartons designed by Parker-Young Studios and made by Green Bros., Inc., both of East Providence, R. I.



An aluminum foil-paperboard lamination forms an appealing new display for six cartons of Nestle baby hair treatment. The die-cut folding carton has a gold background with maroon as the contrasting color. A die-cut, embossed header piece pictures a baby and carries the message: "Curls for your baby." Individual cartons are the traditional baby blue and pink. Display and cartons, Brooks & Porter, Inc., New York.



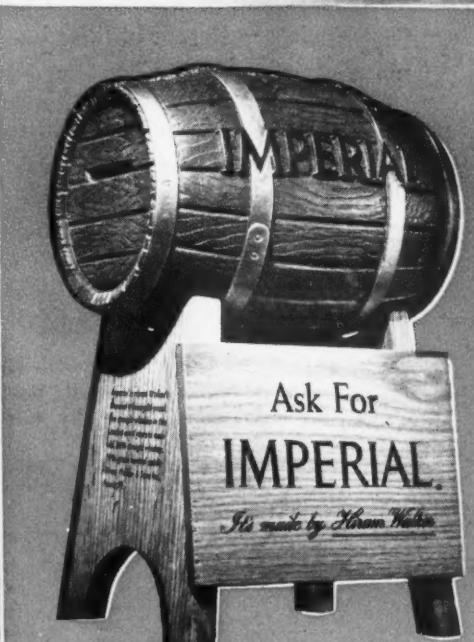


This comparison of old and new packaging for the Stanley screen door catch shows the effectiveness of strong, simple copy and illustrations. Colors—yellow and blue for the display and red, blue and white for the take-home package—were selected on the basis of a survey among hardware stores which revealed that these had the greatest eye appeal. Design, Gerald Stahl, New York. Cartons, Brooks Bank Note Co., Springfield, Mass.

The more places tooth brushes are displayed, the more sales are made. Weco Products Co. is renewing the teaming up of Dr. West Miracle Tuft brushes with Philip Morris cigarettes to get tooth brushes on cigar counters. Frame of display unit is blonde wood veneer. Glass front, covered with "Call for Philip Morris" decal, is illuminated. Brush compartment is of 0.040 vinyl with a 0.125 acrylic sign. Display made by Precision Plastic Products, Inc., Chicago, of Bakelite vinyl and Rohm & Haas Plexiglas.

A metal rack displays cartons holding three Bostwick Laboratories Hero fire extinguishers. The self-dispensing, aerosol-type metal container has an aluminum foil label. Display, Manhattan Wire Goods Co., New York. Carton, Hercules Paper Box Corp., Bridgeport, Conn. Can, Continental Can Co., Inc., New York. Label, Walker-Rackliff Co., New Haven, Conn.

The Centaur-Caldwell Division of Sterling Drug, Inc., has adopted an easel display to promote Midol tablets. The die-cut card, lithographed in full color, reproduces the face of a clock with figures engaged in active sports and dancing, indicating "around the clock" relief from pain. Product name is prominently displayed. Display, Hussey-Woodward, Inc., New York.



Molded of plastic wood in three-dimensional form, this bar display piece and tipping device for Hiram Walker's Imperial Whiskey is an exact replica of an oak barrel—symbol of all Imperial advertising. The keg, measuring 6 1/2 by 4 by 10 in., is hollowed out with coin slots at either end. A spring at one end makes for easy removal of contents. Staves, hoops and lettering are in relief. Display, Kay, Inc., New York.

Snow packages

POLYSTYRENE FOAM PACKAGES MAKE BIG

HIT IN THE COSMETIC AND CANDY TRADES

A plastics discovery of recent years that has turned out to be a natural for Christmas packaging is polystyrene foam. The glistening, snowy appearance of this material makes it ideally suitable for the making of all manner of decorative containers in the shape of snowballs, snow men and Christmas trees.

During the holiday season just past, cosmetic counters and shop windows from coast to coast were featuring miniature snow men and Christmas trees of this material, each holding bottles of leading brands of cologne and perfume.

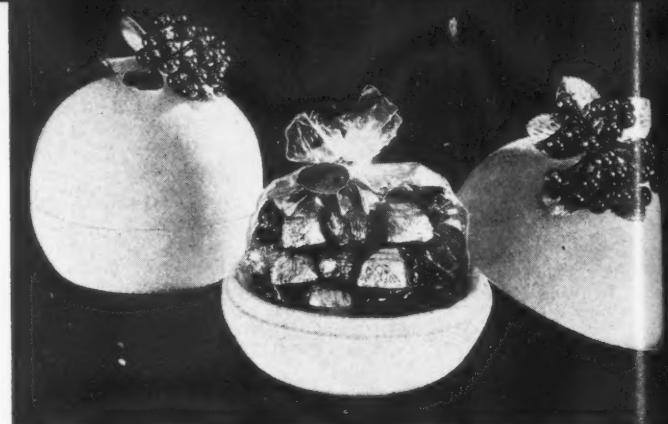
The unusual appeal of the material for confectionery packaging is indicated by the sparkling snowball box adopted for Rosemarie de Paris de luxe chocolates.

Polystyrene foam is made from a low-density form of polystyrene by foaming the resin chemically while in a plastic state to form a fluffy, light material. It was originally developed as a material for insulation against temperature and sound and also as a flotation material in the fabrication of small boats. It is usually cast into sheets or blocks.

Its unusual frosty appearance, however, immediately suggested its use as a novelty packaging and display material, particularly when the idea of ice or snow was to be suggested. Several fabricators began experimenting with the machining of the material in block form to make containers of decorative shapes. One of the first of these to appear on the market several years ago was the snowball package used by Lenthaler for miniature flacons of perfume. Later a similar container in the shape of an Easter egg was introduced.

CHRISTMAS TREE decorated with tiny glistening balls holds a small bottle of Elation cologne by Dorothy Gray.

SNOW FIGURES in miniature are very realistic when made of the frosty plastic material. The Santa Claus was used by Dorothy Gray. The snow man and snow maid figures were adopted as gift packages by Elizabeth Arden.



CANDY BOX resembling a big snowball, used by Rosemarie de Paris, suggests the use of polystyrene foam packages in the gift confectionary field.

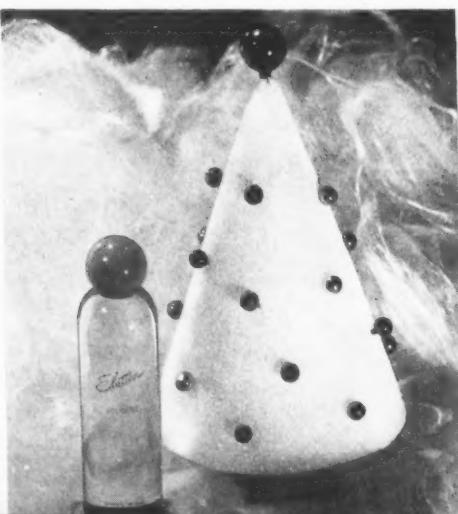
The success of these packages led to the development of more intricate shapes and other uses. The containers can be made in two parts, one a lid and the other a base, fabricated to provide a tight fit. For example, the Rosemarie snowball holds the candy in the base, piled high and wrapped in cellophane to hold in it place. The semi-spherical form of the lid fits over the base flush, so that the complete effect is that of a big snowball when the package is closed, flattened just enough on the bottom to make it stand up.

Elizabeth Arden's Snow Man and Snow Maiden were made realistic with bead and tinsel eyes, hats and metallic bows around their necks.

Dorothy Gray's snow Santa Claus had a traditional peaked hat, cotton beard and tiny Christmas balls for eyes, nose and coat button. A cone-shaped package of polystyrene foam simulated a Christmas tree and held Dorothy Gray's Elation cologne.

The beauty of packages made of polystyrene foam is their lightness of weight and sturdiness in spite of the delicately pleasing appearance of the material. These packages are also comparatively low cost for glamour packaging and they have almost universal appeal.

CREDITS: Containers, Detroit Macoid Corp., Detroit, Mich. Material, Styrofoam, The Dow Chemical Co., Midland, Mich.





face powder by

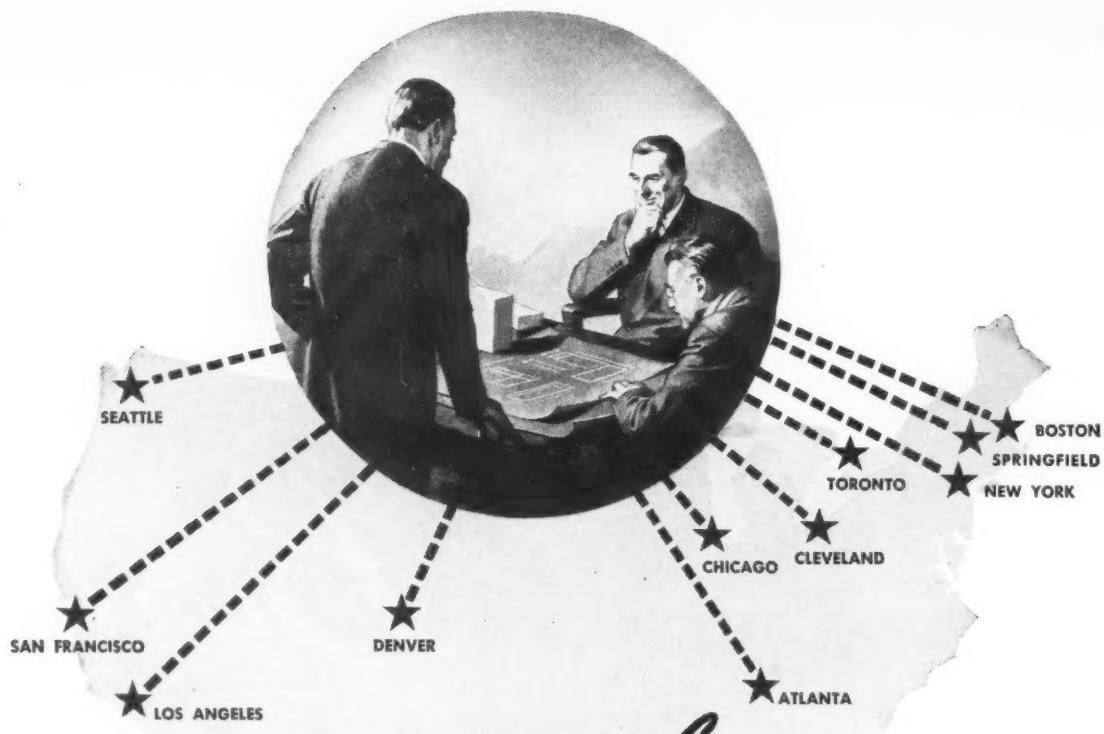
Richard Hudnut

box by

Burt



F. N. Burt Company Inc. • The World's Largest Manufacturer of Small Set-Up Boxes • 500-540 Seneca Street, Buffalo 4, New York
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TECHNICAL

ENGINEERING • METHODS • TESTING

Charles A. Southwick Jr. • Technical Editor

New uses for desiccants

Moisture damage with resultant deterioration in product quality has long been a paramount packaging problem for the producers of many perishable items. The problem is particularly pressing for manufacturers of hard candy and similar confections, pharmaceuticals, vitamins, cereals, crisp bakery products and dehydrated foods. Manufacturers and shippers of machinery, tools, electronic equipment, instruments and metal articles of all types are better informed on methods of protective packaging to eliminate loss from corrosion, mold and rust through their wartime experience. Now confectioners, bakers and drug manufacturers, too, are learning the benefits of desiccant packaging.

Research and development by the Armed Services during the recent war resulted in perfecting Method II protective packaging. The principle involved in this procedure is the use of a solid, inert, harmless desiccant and a water-vapor-resistant envelope or barrier. The required quantity of desiccant, placed inside the package with the contents, serves to adsorb incoming mois-

* Manager, Desiccant Division, Filtral Corp., Los Angeles, Calif.

I. COMPARISON of free-flowing dehydrated onion powder (left), which has been packed with Desiccite 25, and an unprotected sample (right), which has caked solid. Desiccite is a pelleted form of desiccant manufactured from pure montmorillonite; it is inert, tasteless and odorless, and thus can be packaged directly with foods.

FOOD AND DRUG PACKAGERS ARE ADAPTING

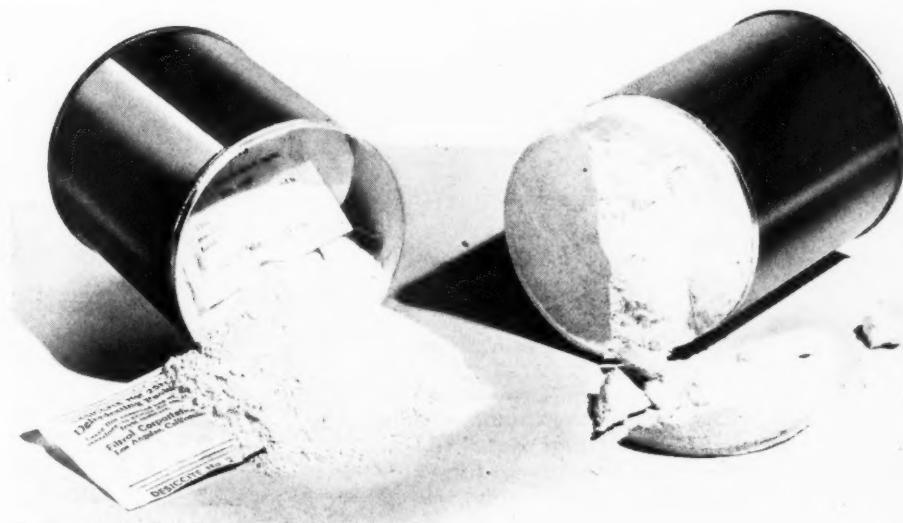
WARTIME METHOD II FOR THE PROTECTION
OF PRODUCTS AGAINST MOISTURE PICK-UP

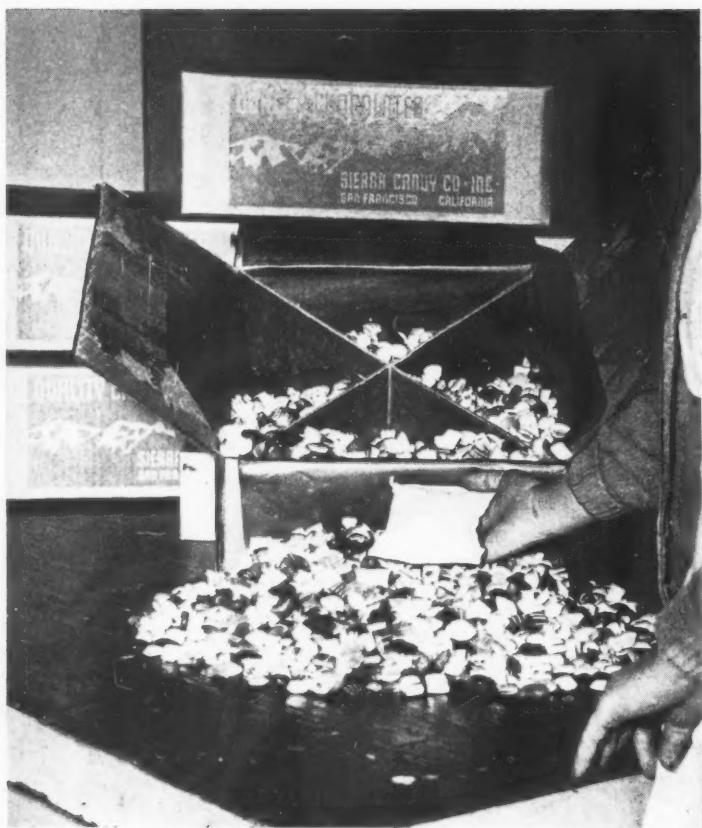
By Roger A. Lovett*

ture not completely excluded by the barrier or moisture-resistant liner. Thus, a safe, low relative humidity atmosphere is provided in which moisture damage cannot occur.

Many years of research and development work have perfected a unique type of dehydrating agent, or desiccant, which is manufactured from a very pure grade of the complex mineral montmorillonite. It is a solid, physical moisture adsorbent of high efficiency that is

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2. HARD CANDY remains free flowing and glossy after several months' storage in lined 30-lb. carton containing 6-oz. bag of desiccant. Small 5- or 10-gram packets of desiccant placed beneath lids of glass candy jars are also effective.



3. CELLOPHANE BAG is adequate package so long as atmosphere in the shipping container is kept dehydrated. Bag at the left was packed and shipped with desiccant; candy is dry and flows freely. In the bag at right, which was shipped without desiccant, the candy is a sticky mass.

inert, odorless, tasteless and non-toxic. Millions of pounds of this desiccant, patented and registered by Filtrol Corp. under the trade name "Desiccite," have been manufactured to meet the demands of almost every branch of the Armed Services. This article is a report on the special properties of this type of desiccant and the new uses that are developing for it, particularly in the food and pharmaceutical fields for which it is so well suited. Because of the inert and harmless nature of Desiccite 25, the Food and Drug Administration does not object to its use in conjunction with foodstuffs when it is packaged in a siftproof container identified as not being a part of the contents and the outside label declares the presence of a desiccant.

Desiccite 25 is a pelleted form of the montmorillonite desiccant that adsorbs water vapor from surrounding atmosphere by physical means alone. It does not liquify or otherwise degenerate under the most extreme conditions. A distinguishing characteristic of Desiccite 25 is its ability to adsorb large quantities of water from air in the lower relative humidity regions, especially in the useful range below 30% (see graph, Fig. 5). A second unusual property is its high apparent or bulk density of 60 lbs. per cu. ft. By permitting the packaging of a greater weight of desiccant in a given volume, many problems are being solved where available space for storing packages is limited.

Postwar advances in the manufacture of inexpensive water-vapor barriers have contributed to the economical solution of civilian packaging problems with desiccants. Another factor contributing to economy in civilian protective packaging is prior knowledge of almost all the conditions to which the package will be subjected. The intended life of the package, the locale and climatic conditions involved, the nature of the contents and other direct influences can be evaluated in advance, with the result that both over-protecting and under-protecting can be avoided.

Factors to be considered

Several general factors must be considered in applying a desiccant to a specific packaging problem. Of importance is the moisture barrier—which may be broadly defined as any material or substance, usually in sheet form, having an effective degree of resistance to the penetration of water vapor. Barrier materials are available with a wide range of resistance up to nearly 100% in effectiveness. Ordinary paper bags and paperboard cartons have practically no resistance to water vapor, while metal foils and some of the synthetic films approach a perfect barrier. One of the few examples of a perfect barrier is the hermetically sealed metal can. On the other hand, even glass bottles and jars with screw caps allow water vapor to pass the closure unless special precautions are observed in sealing. Formulas have been developed by which the quantity of a desiccant may be calculated for use with perfect or near-perfect barriers. (1, 2)† However, these have a somewhat limited application in the solution of

† Numbers in parentheses refer to References appended.

protective packaging problems because there are many products which require a less expensive type of container.

While the function of a desiccant in protective packaging is always to adsorb water vapor, the reason behind the need for a lower moisture-content atmosphere varies with the nature of the contents. In protecting articles or substances which do not themselves tend to adsorb appreciable quantities of water vapor, it is usually necessary to add only a small quantity of desiccant to the existing package. Hygroscopic products that must be maintained in a perfectly dry condition to protect crispness, gloss, flavor or a powdered condition require larger quantities of a desiccant and, in some cases, a more resistant moisture barrier. For those products that have strong moisture-adsorbing properties themselves and which are damaged by a very slight increase in moisture content, a desiccant must be used with a very effective moisture barrier. In this group are included those products that will stick, cake or otherwise degenerate even though no outside moisture penetrates the container. A desiccant can be used to dry these materials further while in the container and thus prevent damage and insure longer life.

A final general consideration in protective packaging is the location of the desiccant within the package. As a desiccant can very seldom be applied in bulk, it must first be placed in bags or envelopes that will allow the penetration of water vapor. In packages or containers such as glass jars, which permit water vapor to enter at only one confined location, the desiccant can be placed directly between this point and the contents. However, if water vapor can penetrate equally well from all points on the surface of a large container, it is often necessary to divide the required quantity of desiccant into several parts and distribute these uniformly. This latter requirement is more important with closely packed or powdered material than with bulky contents which allow relatively free circulation of enclosed air.

The various methods of applying a desiccant to civilian protective packaging can be best illustrated by examples in the different fields.

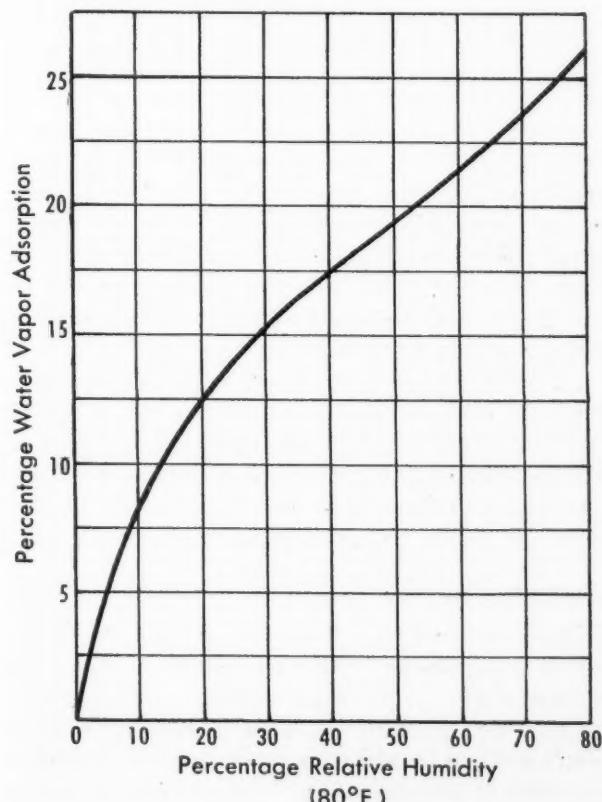
Confectionery products

Hard candy, brittles and similar confections are often shipped in bulk in corrugated cartons (see Fig. 2) lined with sheets of heavy waxed kraft paper. In climates that are only mildly humid, the placing of a 4- or 8-oz. bag of desiccant with 25 to 30 lbs. of bulk hard candy, inside the waxed kraft paper liner, greatly extends the carton life. More severe conditions of humidity and temperature often require a well fabricated case liner or bag of moistureproof material such as asphalt-laminated kraft paper and from 8 to 12 oz. of desiccant. The most extreme conditions encountered in some areas of our country and in export shipment may require the protection of a moisture barrier prepared from a highly resistant material and a greater quantity of desiccant.

Even when packed in glass jars, hard candy sometimes becomes sticky and loses its gloss. This is



4. VARIOUS SIZES and types of bags and packets used to contain Desiccite for desiccant packaging. The bags must be porous to water vapor. Desiccite does not dust because of its pellet form.



5. MOISTURE PICK-UP by Desiccite 25 is particularly good at low humidity regions, especially below 30%. Curve shows amount of water-vapor adsorbed at various relative humidities.



6. PHARMACEUTICAL TABLETS such as Cutter's penicillin troches are protected against moisture pick-up by inclusion of two packets of Desiccite in bottle.



7. REDUCTION in non-enzymatic browning of dehydrated onion flakes packed with varying amounts of Desiccite 25. Unprotected flakes are illustrated in the lower left corner.

usually due to a breathing action which causes outside air to enter the jar. In other cases it may be due to sweating caused by temperature changes. A small 5- or 10-gm. packet of desiccant placed directly beneath the closure often eliminates this difficulty and in addition maintains the candy in perfect condition during the consumption period.

Flexible bags used in the pre-packaging of hard candy should be fabricated from material having a fairly high degree of resistance to water vapor, since these bags have a high ratio of surface area to volume. Small packets of desiccant packaged with the candy in suitable bags give excellent results, while poor barriers require an uneconomical quantity of desiccant. On the other hand, all types of bags can be effectively protected in cartons during storage and shipment in the same manner as bulk candy.

Some candy manufacturers ship or store their products in 5- or 10-gal. metal containers that are difficult to seal completely, especially if they are re-used. The addition of a 4- or 8-oz. bag of desiccant to the contents, directly beneath the lid, can effectively overcome this moisture-damage problem.

Pharmaceuticals

Many pharmaceutical base materials and finished products require protection against moisture damage. If sufficiently moisture-resistant storage drums and bins are used for base materials, bags of desiccant of appropriate size can be added to the contents to furnish the necessary added protection. In this way, mold, mildew, caking and loss of potency can be prevented.

Many finished products, including vitamins, certain penicillin compounds, amino acid derivatives and a number of others, deteriorate with time even when packaged in glass bottles and jars. The addition of a small

gram-sized dehydrating packet to these containers eliminates such losses. An example is the use of 5-gm. dehydrating packets by the Cutter Laboratories of Berkeley, Calif., for the protection of their pharmacy-sized bottles of "Pen-Troches" (Fig. 6). In this case the label cautions the user to keep the bottle tightly closed in order to allow the enclosed desiccant effectively to preserve the potency of the penicillin.

The protection afforded by a 5-gm. dehydrating packet is best illustrated by actual experimental results. During a test program made in cooperation with a West Coast manufacturer of a combined mineral and vitamin tablet, a 5-gm. dehydrating packet was placed in each of several bottles of 100 tablets and the bottles sealed in the usual manner. At the start of the tests the tablets contained 6.7% free moisture. After several weeks storage in various locations, free moisture determinations were again made and values of 6.05%, 6.10% and 6.11% were obtained on different samples. These results not only indicated that all incoming water was adsorbed, but that the Desiccite 25 had sufficient capacity to reduce substantially the original moisture content of the tablets, thus greatly extending potency and shelf life.

Dehydrated fruits and vegetables

Great strides were made during the recent war in the volume production of many dehydrated fruit and vegetable items. One of the principal objections to the acceptance of these items for civilian use has been that of taste quality. It is well known that the quality and keeping properties of dehydrated products are in direct relation to the moisture content. While a number of items are very difficult to dehydrate beyond a certain point in processing, a desiccant in the package can be used safely to lower the moisture content still further



8. SHORT-TERM PROTECTION of potato chips can be achieved simply by dropping a 15-gram packet of desiccant into conventional 3-lb. carton.

and maintain this over a long period. This is known as "in-container" dehydration.

A specific example of the use of a desiccant to solve a very difficult problem of this type is found in the protection of onion powder. Even when dried to the lowest level possible by ordinary means, it sometimes occurs that the finished onion powder cakes after packaging in sealed metal cans (Fig. 1). As the result of a thorough research program conducted in cooperation with the J. R. Simplot Co. of Caldwell, Idaho, it was found that by packaging the onion powder with approximately 10% by weight of Desiccite 25, the caking could be completely overcome and much better appearance and flavor obtained. Onion flakes packed with Desiccite 25 showed evidence of considerably reduced non-enzymatic browning (Fig. 7), resulting in improved appearance and taste. Data in Table I illustrate the degree and rate of moisture reduction in sealed containers of onion products packed with the desiccant.

TABLE I—MOISTURE REDUCTION IN COMMERCIAL DEHYDRATED ONION PRODUCTS PACKED WITH DESICCITE 25

(Desiccite 25 equal to 10% by weight of onion product added to sealed metal container)

	Initial moisture content	Moisture content at intervals			
		3 weeks	4 weeks	6 weeks	7 months
Onion powder	4.60%	3.70%	3.42%	3.23%	3.20%
Onion flakes	5.14%	3.30%	3.15%	3.10%	2.89%

In addition to furthering the dehydrating operation in the container, a desiccant can be effectively used to maintain a low relative humidity atmosphere in ordinary dehydrated fruit and vegetable packages. A West Coast dehydrator using the vacuum process reports that his finished products are in equilibrium with an atmosphere having a relative humidity of 12%. Be-

cause of the extremely high adsorption capacity of Desiccite 25 in this range, it has been found effective in maintaining this low moisture level in retail packages. Of course, in this application it is necessary to employ exceptionally efficient moisture barriers, usually of the heat-sealable type.

Crisp bakery products

Many bakery and cereal products can be maintained in crisp condition by the use of a desiccant. It is perfectly feasible for manufacturers of high-quality products selling at a premium price to include a packet of desiccant in each unit. Lower-priced and more competitive packages can be protected by including a desiccant in cartons or shipping cases containing several individual units. The addition of a small dehydrating packet to the individual carton or shipping container not only increases the salability of the product due to its better condition, but usually extends the geographical limits of distribution by increasing the shelf life. As previously discussed, a moisture barrier or wrapper having fairly high resistance to water-vapor penetration should be used if the full benefit of a desiccant is to be obtained.

It has been found that 1½ or 3 oz. of Desiccite 25 are sufficient to extend greatly the shelf life of potato chips packed in 3-lb. bulk cartons (Fig. 8) constructed of wax-lined chipboard and equipped with a tightly sealed cover.

General considerations

As previously indicated, there are a number of variables involved in each individual application of civilian protective packaging. These prevent the pre-determination of the exact amount of desiccant required in a specific problem. The reasons for this situation are apparent, since they involve the length of time for which protection is required, the nature of the product, the prevailing humidity and temperature conditions and the resistance of the package to water-vapor penetration.

It is usually necessary for each prospective user of a desiccant to establish the amount required to protect his own products. In many instances the economic factor plays an important role and will establish the upper limit on the amount of a desiccant which can be used. By adding various quantities of desiccant to the existing packages and then holding them for the appropriate length of time, a manufacturer can compare the quality of his products with unprotected packages. In this way the minimum amount required to produce the desired results can easily be determined. If it should be found that an excessive quantity of desiccant is required, this can be reduced by employing a more efficient moisture barrier.

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Meat-film considerations

REACTIONS OF FRESH AND PREPARED MEATS TO PACKAGING DIFFER;

FILM MUST BE CAREFULLY CHOSEN TO CONTROL

COLOR, SHRINKAGE AND BACTERIAL GROWTH. By Nelson Allen*

With the solving of some of the technical problems in the packaging of retail consumer cuts of meats, packaging for self-service selling has become widespread throughout the United States and Canada. The trend to self-service meats is growing constantly and every day sees operations shifting from service to self service. The importance of this trend is evidenced by the amount of time that was spent discussing self-service meats at the recent 11th annual convention of the Super Market Institute. This meeting was reported in MODERN PACKAGING (1).† The subject has also been covered in other articles in MODERN PACKAGING (2, 3, 4).

The successful handling of packages of meat for retail selling involves the solution of a number of technical problems. Some of these problems and the progress in the solution of them will be described.

In considering packaging, meats may be divided into two categories: (1) fresh meats, such as beef, pork, lamb and veal, and (2) the prepared and cured meats. Any meats which differ in any respect from fresh meats are regarded as prepared or cured meats. Thus, fresh pork sausage falls in the category of prepared meats.

Fresh meats

One of the most important requirements in the packaging of fresh meats is the retention of satisfactory color. Lavers (4) has discussed this problem in detail. Color retention in fresh beef is a particular problem since beef has a deeper color than other meats such as pork, lamb and veal. Color in meat is produced by the pigments in the muscle tissues, which are mainly derivatives of myo-hemoglobin (5, 6). These pigments undergo various changes on exposure and aging due to physical, chemical and biological processes. The bright red color associated with fresh beef is produced by the oxygenated form of the myo-hemoglobin. This develops in the meat on exposure to air a short time after cutting and is the color desired by the customer. The colors of pork, lamb and veal are also subject to the same changes, but the colors are less intense.

Flexible transparent packaging materials lend themselves admirably to the packaging of fresh meats if the desirable color of the meat can be retained. Unfor-

tunately, the color of fresh meat changes very rapidly in the majority of packaging materials.

Tests on various packaging materials indicate that the retention of color of fresh meat is dependent on several properties of the material.

Lavers (4) indicates that control of the partial pressure of oxygen around the meat is effective in maintaining satisfactory color of fresh meat. This is correct, but other factors also appear to be involved in holding a satisfactory color.

Research in the Du Pont laboratories has shown that, in addition to oxygen permeability, two other factors are important, namely, low water-vapor permeability and a certain degree of water-absorptive power. This work has indicated that the color problem can be solved not by any one film characteristic, but by a proper balance of these several properties.

Du Pont has developed a special type of cellophane designated as MSAT-80 which tests have shown to be effective in holding the color of fresh meat for periods of 72 hrs. and longer when stored at 34 to 40 deg. F. This appears to meet the normal turnover requirements of a well supervised retail store operation.

MSAT-80 is characterized by having a "wettable" surface which must be kept in contact with the meat. This wettable surface maintains close contact with the meat and has a certain degree of water absorbency. Its oxygen permeability is on the low side and its water-vapor permeability is relatively low. Low water-vapor permeability is important in maintaining color because excessive drying of the meat surface contributes to change in color. Drying can also lead to weight losses.

The laboratory data in Table I illustrate the effect of drying on color retention.

It must be remembered that in mechanically refrigerated self-service cases, the relative humidity may average as low as 60%. Therefore, films with high water-vapor permeability may cause excessive loss in weight of the packaged meat which in itself creates another problem for the retailer. Pre-packaged meats are weighed when packaged and if the weight loss is rapid, the turnover must be rapid or an excess shrinkage allowance must be made at the time of packaging.

Bacterial and enzymatic action also play important parts in the retention of color and these are profoundly

* Cellophane Division, E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.

† Numbers in parentheses refer to References appended.

affected by temperature. The effect of temperature on the performance of MSAT-80 is shown in Table II.

Packaging fresh meat in flexible transparent wrapping materials may hold a high relative humidity within the package if the wrapping material has a low water-vapor permeability. The data shown in Table I on percentage weight loss in 300 MSAT-80 indicate that a high relative humidity is held within this package. Humidities above about 80% R.H. are conducive to mold growth. The relationship between R.H. and the growth of micro-organisms is covered by Jensen (5).

Following is a report by an independent laboratory on the effect of packaging on bacterial growth.

"The films tested were 300 MSAT-80 cellophane and other transparent packaging materials. A series of boneless round steaks were used, with one group being wrapped in each film and also an unwrapped series for control samples. Bacterial samples were taken from a steak of each series at three-day intervals for a total of 15 days. The steaks were held in a chill room where the temperature ranged from 34 to 40 deg. F. A total of five such runs was made.

"On the average, the meat wrapped in 300 MSAT-80 remained bright and salable for seven to nine days. The other steaks were generally discolored at the end of two or three days. The results of this study indicate that 300 MSAT-80 had no significant bacteriostatic action. The colony counts were high for all steaks. The rise in numbers of micro-organisms present was very rapid from the beginning until approximately the ninth day, at which time the organisms found remained at a more or less constant level."

Other tests have shown no significant increase in bacterial counts if the packaged meat is properly refrigerated. For normal turnover periods of three days or less, there have been no indications of abnormal bacterial growth.

The book "Meat and Meat Cookery," published by the National Livestock & Meat Board (7), in considering meats not sold at self service, recommends that the

LABORATORY INSPECTION
for possible mold growth and
determination of weight loss
of pre-packaged meat samples.

**TABLE I—COLOR AND % WEIGHT LOSS DATA ON
PACKAGED FRESH BEEF
(Identical cuts of eye of rib)**

	Hours held at 40 deg. F.					
	18		42		69	
	% R.H.	% wt. loss	Color	% wt. loss	Color	% wt. loss
300 MSAT-80	60	0.6	9	1.2	9	2.0
Cellulose acetate, 100 gauge	60	3.3	7	8.4	6	14.8
Cellulose acetate, 100 gauge	100	0.8	8	1.3	7	2.3

EXPLANATION OF RATINGS: 10 = perfect, 7 = borderline, below 7 = unsatisfactory.

**TABLE II—EFFECT OF TEMPERATURE ON COLOR OF
FRESH BEEF IN 300 MSAT-80 CELLOPHANE**

	Ratings on color after		
	18 hrs.	42 hrs.	69 hrs.
At 40° F.	9	9	8
At 50° F.	8	8	5
At 72° F.	5	0	..

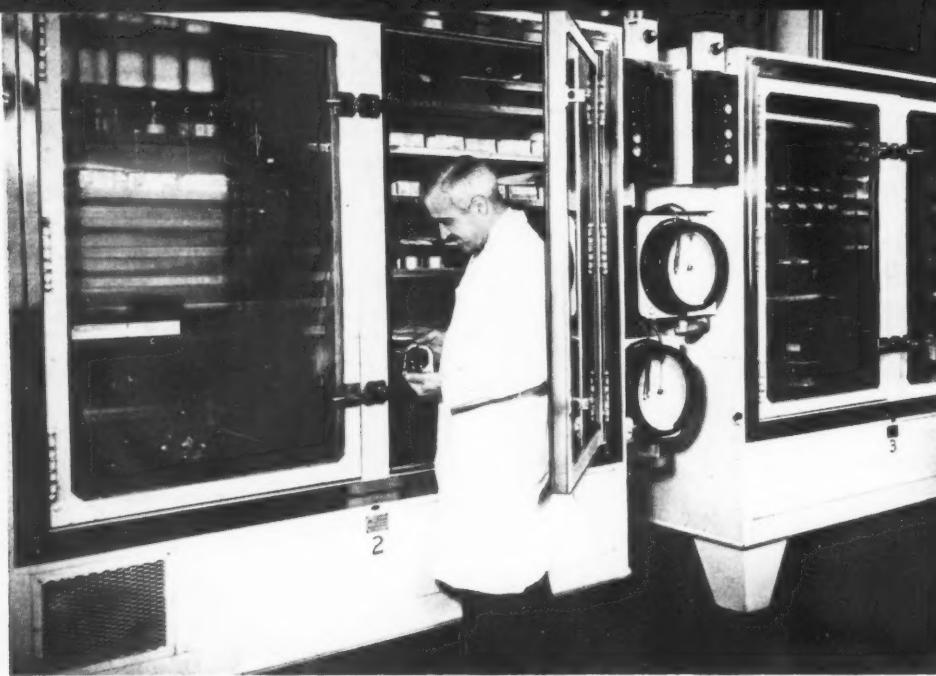
EXPLANATION OF RATINGS: 10 = perfect, 7 = borderline, below 7 = unsatisfactory.

housewife unwrap cuts of meat as soon as delivered and that the meat be placed on a clean dry shallow dish uncovered or lightly covered in the coldest part of the refrigerator. The meat is left uncovered or lightly covered to permit a slight drying of the surface, which retards bacterial development.

In view of the fact that no control can be exercised over packaged meat after it leaves the retail store, it appears that the safest procedure would be to recommend that the housewife follow the suggestions of the National Livestock & Meat Board if the meat is to be held several days before use. If fresh meat packaged in MSAT-80 were held for several days under conditions of variable high temperatures, sliming and molding

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DU PONT TECHNICIAN inspects the color of pre-packaged fresh meat samples stored in test cabinets under controlled temperature and humidity.

might develop. Experience over the past few years has shown that fresh meat can be held satisfactorily in the home in MSAT-80 for normal periods of three to four days at the preferred temperatures of 34 to 40 deg. F.

In packaging meat, materials other than transparent flexible films must frequently be used. In some meat packages, boards, papers and trays must be used to obtain satisfactory rigidity and durability. Boards and trays are often essential for mechanical packaging. It is extremely important that all such materials maintain satisfactory color in fresh meat and that they impart no taste or odor to the meat. A number of manufacturers are now regularly supplying papers, boards and trays especially designed for the packaging of fresh meats.

Prepared and cured meats

In packaging prepared and cured meats, color is also a problem, but it differs radically from the color problem encountered with fresh meats. The color of prepared and cured meats is subject to change or "fading" when exposed to light and air. The articles by Urbain, et al., on "The Heme Pigments of Cured Meats" (6) describe thoroughly the changes which take place. Both light and oxygen must be present to bring about fading. If the meats are kept in the dark, they do not fade. They may be packaged in transparent flexible packages in a vacuum and exposed to light without fading. However, vacuum packaging in transparent flexible containers requires special equipment and special techniques.

For self-service selling, a visibility package is essential and this requires that light penetrate the package. Fading is dependent upon the intensity of the light and the time of exposure, as shown in Table III.

The data in Table III show that the different portions of the spectrum of visible light are about equal in producing fading if the same light intensity is present.

Light in the ultraviolet region has been found to produce more rapid fading than light in the visible, but

TABLE III—EFFECT OF LIGHT INTENSITY ON FADING OF SLICED BOLOGNA

Test condition	Light intensity, foot candles	Temp., °F.	Hrs. of exposure				
			0.5	1	2	3	19
LSAT cellophane	13	35-45	9	9	9	8	7
" "	26	"	8	8	8	7.5	6.5
" "	48	"	8	8	8	7	6
LSAT + dark blue filter	33	"	9	9	9	8	6
" + dark yellow filter	33	"	9	9	9	8	6.5
" + light blue filter	33	"	9	9	9	8	6
" + light yellow filter	33	"	9	9	9	8	6.5
" + light green filter	33	"	9	9	9	8	6

EXPLANATION OF RATINGS: 10 = perfect, 7 = borderline, below 7 = unsatisfactory.

ultraviolet light is not a factor in the retailing of packaged meats, since normal store lighting contains insignificant amounts of ultraviolet. However, ultraviolet lamps are sometimes used for sterilization purposes and the effect of these lights on the fading of prepared meats should be determined and controlled.

Temperature also plays a part, as, at the higher temperatures under a given light intensity, fading is accelerated. Practically, fading can be controlled satisfactorily by a number of methods as follows:

1. Keep items which are subject to rapid fading in the dark as much as possible. This means maintaining a minimum display of these items and holding a packaged reserve in the dark.
2. Use the minimum intensity of light consistent with good merchandising.
3. The use of soft white fluorescent lights is suggested. The use of plastic shields for cutting down the intensity and giving more uniform distribution of light is recommended.
4. Stacking packages on edge reduces the intensity of light hitting the cut surfaces of the meats.
5. Some operators use paper disks to cover one face

of the package and display these upside down, depending on the customer to turn the package over.

Prepared and cured meats have a normal shelf life somewhat longer than that of fresh meat, but they are frequently more subject to sliming and molding. Sliming and molding are special problems for high moisture items such as frankfurters and some types of bologna. The importance of relative humidity in the growth of micro-organisms has already been touched on in discussing the packaging of fresh meats. Jensen gives tables on pages 251 and 252 of his book on "Microbiology of Meats" (5), listing the ideal holding conditions of temperature and relative humidity for various meat products. Relative humidities in the range of 70 to 80% are recommended. Packaging of meats in transparent flexible wrapping materials which have a very low water-vapor permeability will hold high relative humidities within the package and tend to accelerate sliming and molding. On the other hand, use of wrapping materials having a very high permeability to water vapor will permit excessive weight loss, which leads to shriveling and very poor appearance. The use of a wrapping material having an intermediate degree of water-vapor permeability is indicated. Such a film should not permit objectionable weight loss, but should permit enough water vapor to escape to retard slime and mold development. Such wrapping materials will not prevent sliming and molding, but will delay its occurrence. Comparative data on weight loss of three cured meats are given in Table IV.

The data in Table IV show the weight loss with the 300 PT, a non-moistureproof type of film, to be excessive. The weight loss with the 300 LSAT was not excessive and the loss with the 300 MSAT-86 negligible.

A comparison of mold development in LSAT and

TABLE IV—PER CENT WEIGHT LOSS OF PREPARED AND CURED MEATS IN 48 HRS. AT 38 DEG. F. IN SELF-SERVICE CASE

Film	Meat		
	Sliced bologna	Sliced bacon	Frankfurters
300 PT cellophane (high permeability)	24.5	4.8	...
300 LSAT cellophane (intermediate permeability)	1.7	1.0	0.7
300 MSAT-86 cellophane (low permeability)	0	0.4	0.2

TABLE V—SLIMING AND MOLDING OF PACKAGED FRANKFURTERS AT 45 DEG. F.

Film	Ratings on mold	
Frankfurters from Lot No. 1	After 8 days	After 11 days
300 LSAT cellophane	10	10
300 MSAT-86 cellophane	10	6
Frankfurters from Lot No. 2	After 2 days	After 5 days
300 LSAT cellophane	10	10
300 MSAT-86 cellophane	10	6

EXPLANATION OF RATINGS: 10 = perfect, 7 = borderline, below 7 = unsatisfactory.

TABLE VI—MOLDING OF FRESH PORK SAUSAGE IN DOUBLE-WALLED BAGS HELD FOR SIX DAYS AT 70 DEG. F.

Test	Film	Ratings on mold
1	LSAT cellophane	6
2	LSAT cellophane	10
3	LSAT cellophane	7
1	MSAT-86 cellophane	1
2	MSAT-86 cellophane	4
3	MSAT-86 cellophane	3

EXPLANATION OF RATINGS: 10 = perfect, 7 = borderline, below 7 = unsatisfactory.

MSAT-86 is available from the data shown in Table V.

Sliming and molding are greatly accelerated by a rise in temperature. Some data on fresh pork sausage packaged in double-walled bags and held at temperatures of about 70 deg. F. are shown in Table VI.

Summary

For the commercial packaging of meats in transparent flexible packaging materials, a film having a water-absorptive surface and a low water-vapor permeability is indicated for fresh meats. This film should be heat sealing for convenient operation and should be resistant to the action of liquids and high humidities. The film should maintain satisfactory color in fresh meats. When used with the wettable surface in contact with the meat and when temperatures are kept at 34 deg. F. or lower, MSAT-80 maintains the color satisfactorily for 72 hrs. or longer.

In packaging prepared and cured meats, a film of a higher degree of water-vapor permeability is indicated. This film should also be heat sealing for convenient use and should be resistant to liquids and high humidities.

Transparent flexible films meeting the above specifications are being used successfully for the packaging of fresh meat and for the packaging of prepared and cured meats throughout the country. On Sept. 1, 1948, it was estimated that there were in the United States about 425 stores packaging both fresh and prepared meats for self-service merchandising. In addition to these, there were about 350 stores packaging prepared meats only and about 160 more stores that were being supplied packaged prepared meats by meat packers.

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Questions and Answers

This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 122 East 42nd St., New York 17, N. Y. Your name or other identification will not appear with any published answer.

Coated paper bands for drug products

QUESTION: Our sales department insists upon a paper band which has a very high gloss coating over the printing for one of our drug products. So far, all the samples submitted by our printer have coatings which scratch very easily or crack on folding. Can you suggest a type of coating for the band?

ANSWER: The samples you have seen appear to have been coated with a spirit varnish, which is characterized by a high gloss but also with a lack of mechanical durability.

The answer is to use a lacquer type of coating which, if properly formulated, can be very flexible and scratch resistant. Such coatings must be applied in heavier weights than spirit varnish to achieve a comparable gloss and therefore are somewhat more costly. However, their use is indicated wherever a tough, durable finish is required.

Strip-seal problem

QUESTION: We produce a kraft paper with a modified wax coating. This is made up by the customer into a wrapper which encloses a number of small cartons and the customer requires the wrapper to be heat sealed in his packaging machines. These seal by means of heated plates which are brought into contact with the outside (unwaxed) surface of the paper for about six seconds, under a pressure of 1 lb. per sq. in. The temperature of the plates is controllable. The heat seal is applied on the paper as a continuous band or strip on top of the wax coating at a position corresponding to the overlap of the wrapper edges. The sealing has to be carried out at a rather low temperature, since the wax coating softens and stains the cartons inside the package when the sealing plates are at 170 deg. F. or above and the problem is to find a heat seal which will work when the sealing plates are below this particular temperature.

We would appreciate any suggestions which you might make as to suitable heat-sealing agents that will accomplish this result.

ANSWER: Your problem of finding a heat-sealing agent which can be applied on wax in predetermined positions and to be heat sealed as an overwrap on a

group of cartons is a very complicated matter. It is not possible to answer your question in detail because of the large number of factors involved and because such practices are very uncommon. You would greatly simplify your problem if you were to make a so-called fin or standing seal rather than an overlap seal. This would eliminate the danger of staining or sealing to the cartons and would simplify the matter of pressure, temperature control, etc. Such a seal could probably be made with relatively minor machine changes. It would also be desirable if you could use an all-over, heat-sealable coating rather than attempt to apply heat-sealing bands or strips over the wax. There are many lacquer, hot-melt or modified wax formulations which can be put on as a continuous film and which have good sealing and moistureproof properties.

It might be pointed out, however, that your present type of material and method of sealing can be made to work if you spend considerable time in development work with various suppliers of heat-sealable coatings, but you will find that such a method will require considerable control and skill for continuous and efficient operation.

Adhesion of labels to films

QUESTION: We are using a label applied by heat sealing to several types of transparent films for packaging delicatessen items. Occasionally we have complaints of the labels coming off after a day or less in the show cases. Why should this occur with some of the films and not with others?

ANSWER: The probable answer to your labels coming off lies in the fact that some of the films are affected by the high humidity of the store display cases. When these films, particularly uncoated cellophane, absorb large amounts of moisture from either the product or the atmosphere or both, they swell, expand and tend to cause a weakening of the bond of many resinous coatings or adhesives.

You probably will be able to find a suitable type of coated label which will adhere under these conditions, but the quickest and simplest answer is to use only films which do not give this trouble and keep your present label.

When it comes to glass-packed **COFFEE-**
64% of Shoppers Prefer It
Sealed with "CEL-O-SEAL"**

REG. U. S. PAT. OFF.



"Sanitary!" More than any other feature, the sanitary protection of "Cel-O-Seal" was appreciated by housewives in a recent nationwide survey. Evidence of the shoppers' concern about sanitation—reason for you to seal with "Cel-O-Seal"!

"Insures Freshness!" Next highest on the list of reasons given by housewives who preferred "Cel-O-Seal" on the glass-packed coffee they buy. By providing this added protection you seal customer goodwill!

"Helps make product tamper-proof!" Another advantage that ranks high with shoppers. "Cel-O-Seal" gives assurance that contents are uncontaminated by sampling or sniffing. Always insure genuineness with "Cel-O-Seal"!

"Helps make product air-tight!" Primary closures stay put when secured with "Cel-O-Seal." It's another plus for "Cel-O-Seal" that scores high with quality-conscious housewives!

**SEE HOW "CEL-O-SEAL" CAN HELP YOU
SEAL MORE SALES**

Add the many merchandising and protective advantages of Du Pont "Cel-O-Seal" to your packaging plans. They'll give you a harder-selling package.

"Cel-O-Seal" cellulose bands come in a variety of colors and color combinations. Can be indelibly printed with your name or sales message.

Have a look at your product sealed with "Cel-O-Seal." Just send us a sample of your package. We'll return it promptly—sealed to sell with "Cel-O-Seal"—together with a copy of the complete survey report, E. I. du Pont de Nemours & Co. (Inc.), "Cel-O-Seal" Division, Wilmington 98, Delaware.

★ According to recent nationwide survey among housewives scientifically selected to represent a sound economic cross-section of American consumers.

DU PONT "CEL-O-SEAL" BANDS



BETTER THINGS FOR BETTER LIVING
... THROUGH CHEMISTRY



Equipment and Materials

CONTAINERS FOR HYGROSCOPIC PRODUCTS

Wheaton Glass Co., Millville, N. J., is introducing a new "Snap-Cap" vial, recommended for the packaging of hygroscopic products. A non-threaded, shallow-skirted polyethylene cap is so designed that it merely snaps into place over the lip of a crystal flint glass vial and can readily be snapped off by slight upward pressure of the thumb.



The flexible polyethylene material has the property of conforming and adhering closely to the lip of the glass, giving virtually a vacuum-tight fit. The makers claim that the transfer of water vapor when this combination is used to package powders, pills, tablets, etc., is virtually nil. The caps may be applied automatically. Stock sizes of this vial available are 2, 3, 4, 6, 8, 10 and 12 drams capacity, with only two cap sizes, 22 or 30 mm., required. Ample label space is provided on the vials.

ROTOGRAVURE PRESS

The Precise Engineering Co., Chicago, announces a new high-speed, roll-feed rotogravure press which will coat and print board in colors—all in one operation. In addition to handling even the cheaper kinds of board, the press is said to be especially efficient for printing labels, overwraps, special finishes in paper, foil, cellophane and glassine. The manufacturers claim it has special advantages for water-solvent and varnish coatings, plastics and other slow drying materials.

CAN FILLER FOR CUBED AND GRANULAR PRODUCTS

The Anderson-Barngrover Div. of Food Machinery & Chemical Corp., San Jose, Calif., after successfully completing a season of trial operation of its FMC 101 utility filler, is

now offering this machine, designed to handle sliced or cubed fruits and vegetables as well as granular products. This model, the first in a new line of can fillers, operates with Nos. 2 $\frac{1}{2}$, 2, 303 or 1-Tall standard-sized cans at speeds ranging from 61 to 168 cans per minute. Special features of the

equipment include a no-can-no-fill device and a vibrating can track which causes the product to settle in the can as it is filled.

IMPROVED CONTAINER FEEDER

Stuyvesant Engineering Co., Lyndhurst, N. J., has made improvements in its automatic container feeder used in conjunc-

tion with the Fillmaster filling machine. The new feeder attachment has the advantage of being hinged directly to the column of the filling machine; thus, it can be swung to one side to permit bag filling at the spout of the machine and, when swung back for automatic filling of rigid containers, it is accurately aligned with the filler's discharge spout.

VACUUM LIQUID FILLER

A liquid vacuum-filling machine which will handle bottles and cans from fractions of an ounce to quart size at a reported rate of 100 per minute is available from the manufacturer, the Packer Machinery Corp., New York. Mounted on casters, the Packer Jr. is particularly adaptable to small plant operations for handling a variety of liquids such as pharmaceuticals, cosmetics, chemicals and foods.

MAKES, PRINTS, FILLS AND SEALS ENVELOPES

The new enveloping machine of the Bartelt Engineering Co., Rockford, Ill.—a complete packaging unit for small items—is said to cut costs three ways: (1) it forms its own envelopes



from a roll of paper, saving initial envelope cost; (2) it prints in two colors, eliminating printing expense, and (3) it accurately counts items that can be hopper fed, fills them into the envelopes and tightly seals them, saving hours of hand labor. This machine, the makers report, has been carefully

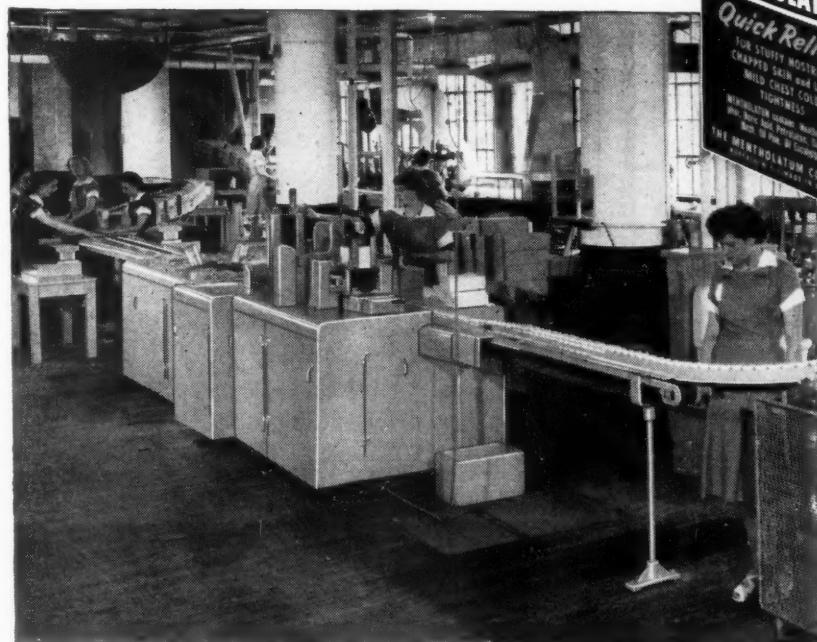
tested for several months and such items as piston rings, screws, nuts, safety pins, tacks, washers, etc., have been successfully packaged, with cost figures available for study. A number of feeds can be used simultaneously in order to package assorted items in one envelope.

STEEL STRAPPING, SEALS AND TOOLS

Allegheny Steel Band Co., Carnegie, Pa., is producing steel strapping, seals, tensioners and sealers, together with other accessories for use in banding all types of packages, bales, boxes, bundles and pallets, under the trade name "Steelband." It is reported five years were spent in research and development of the new tool design before actual production was begun.

NEW PRESSES

The Kidder Press Co., Inc., Dover, N. H., announces production of a new Master aniline printer, said to be the most advanced press of its type ever developed. Some features are: metered ink fountains and a unique drive which keeps fountain rollers running when the press stops; an improved drying system which partially dries each color as printed and then completely dries, seals, re-moistens and cools the printed web.



Jones Constant Motion Cartoner recently installed at The Mentholatum Company for cartoning 1-oz. and 3-oz. Mentholatum jars. The machine feeds a flat leaflet

from the magazine and folds it; feeds and opens carton; inserts jar and leaflet; closes and glues both ends of carton. Speed: 140 or more per minute.



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Remember,
ONLY THE Finest
CAN GIVE YOU THE Lowest CARTONING COST

An illustrated bulletin describing the many operations performed by Jones Cartoners will be sent on request. Write for your copy, today.

The Mentholatum Company installed their first Jones Constant Motion Cartoner in July, 1922. *Ten times* since then, as their product became famous throughout the world, The Mentholatum Company has given Jones the most sincere of all testimonials—*orders for additional Jones cartoners*.

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"Good Production" you say! You bet it is! And you can equal or better it with the new MATADOR Flat and Square Bag Machine. Over the past twenty-five years, the MATADOR has come up from 250 bags a minute (and that caused 1923 eyes to pop) to today's almost five times that record. We've sold hundreds of MATADORS and Aniline printers, and we've yet to hear of one being scrapped. During the war we tried hard to buy back some of these machines, but they were doing such good and profitable work that none of their owners would sell. Today's MATADORS are improved, more sturdily built, attractively priced. You can have a MATADOR to work with paper—or cellophane—and you can get prompt delivery, equipped with Aniline printing press, if desired.

• As the first step to find out how much the modern MATADOR can speed up your production and step up your profits, write, wire or phone us for more information. You'll be glad you did.

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EMULSIFIED WAXES
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Equipment and Materials

(Continued)

after all colors have been applied. This press is available in 42-, 52- and 65-in. widths, in four- or six-color frames.

Also new is this company's oil-ink, multi-color, multi-sized press which features an interchangeable plate cylinder for use with rubber plates. This press is offered in a choice of tensioning systems—Reeves differential type of constant-tension rewind and friction mill-roll brake; the link-belt type and the Kidder all-electric mill-roll and rewind-roll control. Infeed is by pinch-roll and drum control. Ink distribution system includes three large vibrators, two metal form rollers and five soft rollers.

TRANSPARENT CANS WITH METAL ENDS

Sturdy, transparent containers can now be made of extruded acetate sheet sealed with metal-can lids. This type of package, an experimental development of the Tennessee Eastman Corp. to promote the use of low-cost extruded Tenite I (acetate) sheet, suggests usage for such items as candy, nuts, dried foods, coffee, tea, rice, etc., inasmuch as the clear transparency of the material affords an excellent view of the contents of the can. The extruded sheet, while tough, is said to be flexible and of sufficient rigidity for a straight-sided, neat-looking package.



Can bodies are formed from a blank of sheeting—extruded by the economical process which Tennessee Eastman developed—by cementing on a mandrel, or may be bonded electronically into the shape of a cylinder. Conventional metal-can lids are applied in a power sealing machine such as is used in standard canning operations. Decoration or label can be printed directly on the plastic sheet, before the cylinder is fabricated, by lithography, silk screening or by the application of a decalcomania. Further information can be obtained from the Tennessee Eastman Corp., 10 E. 40th St., New York.

TABLET BOTTLING MACHINE

After field tests in actual production operation, the U. S. Automatic Box Machinery Co., Inc., Boston, offers a new style automatic, tablet bottling machine, lower in cost than the earlier model (see MODERN PACKAGING, June, 1947), for the packaging of coated and uncoated pills and tablets. This high speed machine, available in two models, handles any count, odd or even, from 12 to 500, in rigid containers up to 3 in. in diameter and 7 in. in height and delivers up to 120 filled containers per minute.

CONCENTRATES FOR WAXES

Users of paraffin and microcrystalline waxes will be interested in the three new types of Arwax concentrates offered by the American Resinous Chemicals Corp., Peabody, Mass. These are of polyethylene, butyl rubber or S-Polymer, sup-

ADAPTABILITY...

HEAT OR GLUE SEALS . . .

Cellophane, glassines, greaseproofs, metal foils, wax thermo-plastic and films.

WRAPS PRODUCTS OF ALL SHAPES



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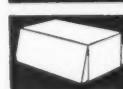
OVAL



OBLONG



IRREGULAR



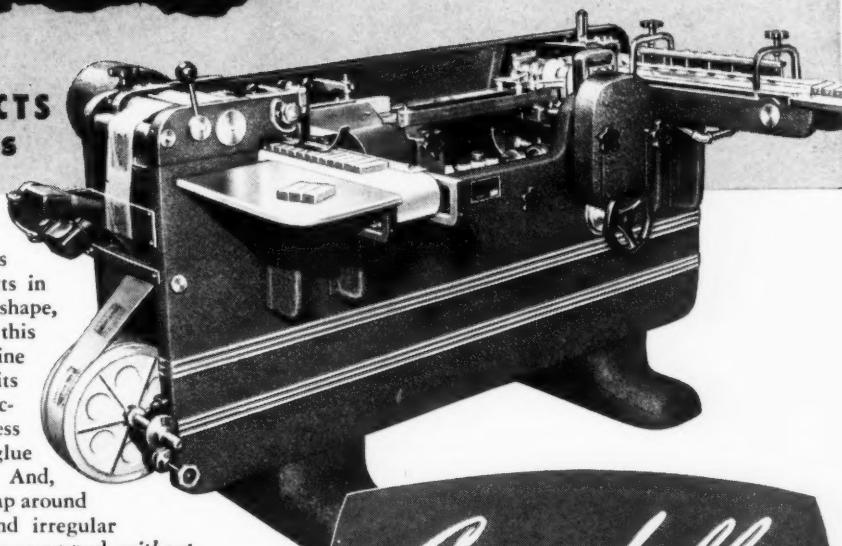
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FLAT

Stick candy, soap, candy bars, drug and food items and thousands of products in every field, regardless of shape, can be wrapped with this modern high speed machine that delivers up to 150 units per minute with label accuracy. Flavor and freshness are preserved by heat or glue moisture-proof sealing. And, because it "floats" the wrap around the product, fragile and irregular shaped products can be wrapped *without breakage*. Investigate the Campbell Wrapper for your product today. It saves you time, money, labor and materials.

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WRAPPER

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Manufacturers

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Revolutionary BUILT-IN TIMING! LONG LASTING CARBIDE CUTTERS!
SELF-EQUALIZING BRAKE ON SPOOL BRACKET!

Your work area is plainly visible and accessible enabling speedy positioning. Automatically feeds, forms and drives wire through material. Gives operator full use of both hands. Makes 250 stitches per minute up to any speed desired. Built-in timing requires no adjustment. Standard staples $\frac{1}{4}$ "—Special sizes at slightly higher costs. Machines available with any number of heads driving staples a minimum center distance of $2\frac{1}{2}$ " . . . WRITE FOR LITERATURE TODAY!

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A NEW MIRACLE IN HEAT-SEALING

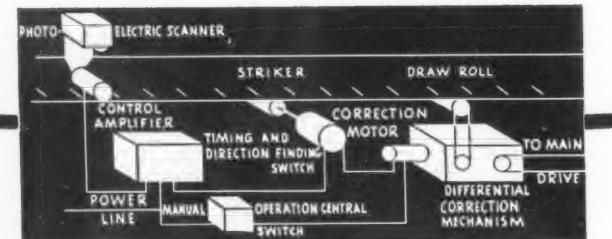
No foot control required to operate this heavy-duty, all-purpose bag heat sealer. The automatic, feather-light touch of the fingers as they place the bag in position does the trick! Like magic, the machine then folds the top of the bag and heat seals it in one swift, sure operation. Speeds up production by as much as 50%. This "Pacer" model is also available with the following exclusive features: Hole Punch, E-Z Open Seal, Date Coding, and Name Embossing attachment.

Automatic and Foot Power Heat Sealers; Rotary Heat Sealers; Hand Sealing Irons; Bag Making Machines and Hot Plates

WRITE FOR CATALOG

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2-WAY REGISTRATION CONTROL

- All component parts needed for perfect registration control.
- Guaranteed faultless operation on YOUR equipment.
- Applicable to any machine using draw rolls to feed the web.
- Savings pay for equipment many times over because—it eliminates hand labor . . . permits faster machine operation . . . stops material waste.
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and Engineering Advice*

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(Factory ASHLEY, OHIO)

Equipment and Materials

(Continued)

plementing the original series of Vistanex concentrates. Producers of milk cartons, bread wrappers, frozen food packages, laminations and greaseproof cartons have found that these resins blend easily with paraffin and microcrystalline waxes and yield a coating improved in many respects, according to the makers. All of the new concentrates are stabilized against degradation by heat or oxidation.

TRUCK FOR PALLETIZED OPERATIONS

The "Palletruk," designed for use in warehouses and plants where operations are chiefly palletized, is the latest addition to the line of materials handling trucks manufactured by Salsbury Corp., Los Angeles.



It is equipped with two 9-in. forks, 48 in. long, spaced 9 in. apart, with tapered forward ends for ease in picking up practically any pallet. A 4-in. lift is provided for ample clearance above the floor. Loads up to 4,000 lbs. are handled

even on a 15 deg. ramp. Articulated to permit handling pallet loads over sharply pitched irregularities in floor levels without danger to load stability, this truck can negotiate aisles only slightly wider than the pallet handled, turns in its own length and has 360 deg. maneuverability.

RUBBER ELECTRIC-EYE SPOTS

In addition to its line of molded-rubber printing plates and design rollers, the Mosstype Corp., Brooklyn, is offering rubber electric-eye spots designed both as a convenience for the paper converter and as an aid to accurate printing cut-off control. The eye-spots are supplied in the form of rubber plates, each plate containing 12 spots of identical size.

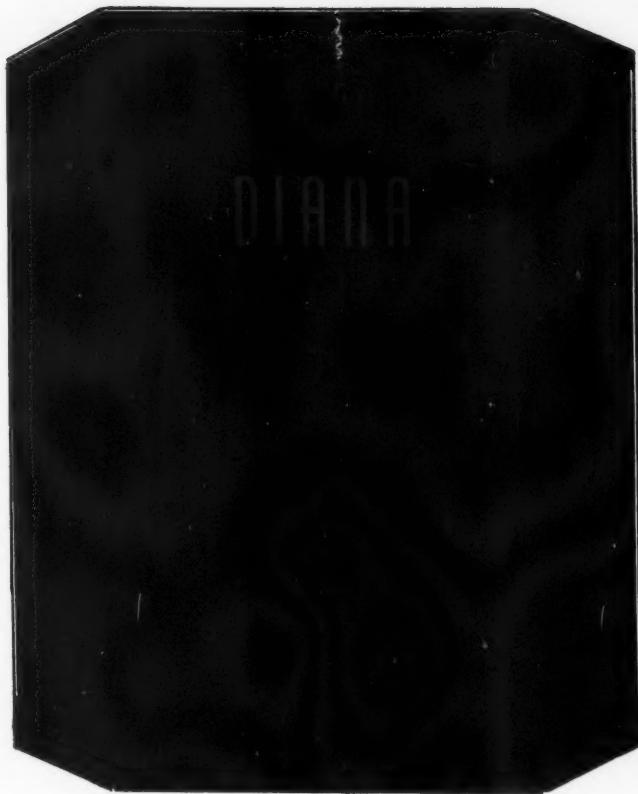
ALLOCATIONS OFF ACETATE FILM

As of Jan. 1, allocations of Lumarith film (cellulose acetate), made by Celanese Corp. of America, New York, will be discontinued and, with the increased production during the past three months, it is now possible for packers of fresh vegetables and fruits, as well as fresh, smoked and luncheon meats, to plan on extending their pre-packaging programs. This film has also been used effectively for numerous other products and for overwraps, bags and window boxes.

ABRASER TESTING SET; CYLINDER BEADER

For determining the abrasion and scratch resistance of plastic materials, lithographed surfaces, glass, organic coatings, varnished metal surfaces, etc., the Taber Instrument Corp., North Tonawanda, N. Y., recommends its improved Model 100-109 standard abrasion testing set. This instrument incorporates a rotary abrading action on a 4-in. specimen. A range of standardized abrasive wheels are available for testing all types of surface finishes, plastics and woven textile fabrics. The unit may also be used for testing wear and scuff resistance of corrugated cartons under moisture conditions.

New, too, is the company's automatic cylinder beader designed for producing a round bead on one or both ends of



Cinderella's Packaging

Your drab, unattractive package is transformed into a glorified, irresistible, fast-moving container when we wave the magic wand.

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Equipment and Materials

(Continued)

thermoplastic transparent cylinders simultaneously. It may be used for beading spiral-wound paperboard cylinders.

IMPROVED DOME-TOP CAN

Geuder, Paeschke & Frey Co., Milwaukee, has redesigned the 5-gal. dome-top utility can made by its Steel Package Div., used for years by the petroleum industry for oils and fluid greases. The new, light-gauge (26 and 28) steel can, they report, is proving popular because of its re-use value. Illustrated is can with lithographed promotional design.



REGISTRATION DEVICE FOR BREAD WRAPPERS

American Machine & Foundry Co., New York, has issued a specification sheet on its latest attachment—a paper registration device—to be used in conjunction with its AMF standard bread-wrapping machine. This device spots the wrapper design in a predetermined position in relation to the loaf by means of a photo-electric cell. Speed is 40 to 45 loaves per min. and it operates with transparent as well as opaque material.

NAILS AND CLINCHES WOODEN CRATES

The Auto-Nailer Co., Atlanta, Ga., announces the development of an attachment for its Spartan Model Auto-Nailer machine which permits the nail to go through even a cross member of a crate and clinch on the outside of the slat, thus affording a clinch which will withstand great stress.

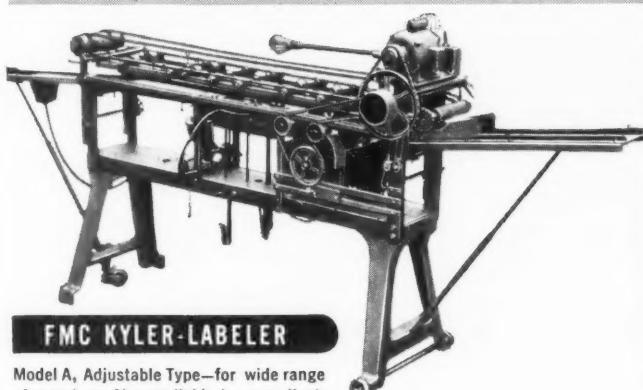
BAG PILER AND FLATTENER

The portable piler and bag flattener, recently added to the line of equipment manufactured by Flexoveyer Mfg. Co., Denver, Colo., elevates bags as it flattens them for more even arrangement in piles, thus performing two operations in one. Units to elevate bags from 12 to 20 ft. at an incline up to 70 deg. are electrically operated and move under their own power. Endless steel-coil springs running over grooved steel rollers form lower conveyor and hugger boom which produces kneading and pressing action to eliminate air from paper bags. It is adjustable to nearly every bag size.

COATED TISSUE FOR HOSIERY

The Packaging Div., E. W. Twitchell, Inc., Philadelphia, has introduced a new satin-finish tissue specially intended for hosiery and textiles. Available in all colors with the exception of gold, its exceptional softness and rich finish provide an attractive wrap or package which may be imprinted with trade name, sales message, etc.

An Inexperienced Man Can Operate This Labeler...

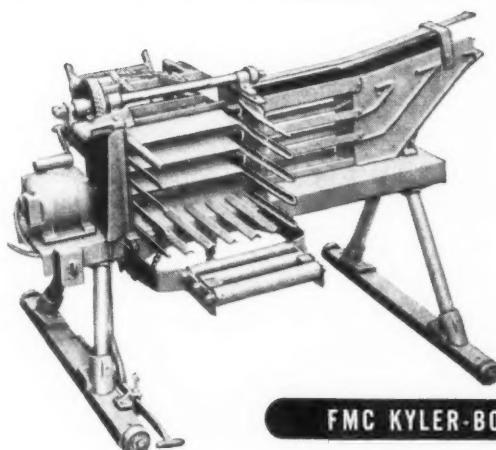


FMC KYLER-LABELER

Model A, Adjustable Type—for wide range of can sizes. Also available in non-adjustable type for a single size can.

FMC-Kyler Labeling Machines are built with such extreme simplicity that an inexperienced worker can operate the machine and make all can-size adjustments.

While these versatile machines can be operated at extremely high speed when peak capacity is required, they are designed and constructed to maintain high efficiency at low speeds also.



FMC KYLER-BOXER

Requires Minimum Man Power and Floor Space.

Model P shown here is Motor Driven, and built for any single size can. Operates at maximum speed. Extremely rigid and sturdy for long-life and low-cost operation.

FIGHT MOUNTING COSTS WITH FMC MODERN MACHINERY



Write for this 260-page Catalog showing complete FMC Modern line of canning, processing and warehouse machinery.

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Shatterproof PROTECTION
with LUSTEROID Vials and Tubes**



Customers appreciate products packaged in Lusteroid. They know that these products are safe from accidental roughness in handling because Lusteroid will not break.

It's worth looking into Lusteroid for product protection and distinctive packaging. There's economy in handling, labeling, packing and shipping. All colors of the rainbow—clear or opaque. Sizes from $\frac{1}{4}$ " to $1\frac{1}{4}$ " in diameter and lengths up to 6" with cork, slip-on or screw-cap closures.

Write for descriptive bulletin.

LUSTEROID CONTAINER COMPANY, INC.

10 Parker Avenue, West
Maplewood, New Jersey



Plants and People

The Package Machinery Co. of East Longmeadow, Mass., announces a change of officers and election of a new vice president. **George A. Mohlman** is now chairman of the



R. S. Clark G. A. Mohlman R. L. Putnam H. Mosedale

board, exchanging places with **Roger L. Putman**, who resigned that position to become president of the company. **Harold Mosedale, Jr.**, with Package Machinery for the past 19 years and production manager since last September, is now vice president in charge of manufacturing. **Roe S. Clark**, vice president and treasurer of the company, is the new chairman of the executive committee.

For the convenience of their customers in the Boston area, the Package Machinery Co. has opened an office in the Park Square Bldg. in Boston. The new office is under the direction of **Joseph Kelly**, who has served this territory from Springfield for the past several years.

To provide better service to the great packing and manufacturing centers of Chicago and St. Louis, the **Crown Can Co.** is enlarging facilities in both cities. In addition to packers' type cans for food products, new, modern, high speed machines will make available more metal containers for many other lines.

John M. Cowan has been named assistant director of distribution for **The Dobeckmum Co.**, Cleveland, Ohio, converters of films, foils and papers. Mr. Cowan was previously manager for market development.

Robert H. Mosher has joined the **Holyoke Card & Paper Co.** of Springfield, Mass., where he will be in charge of research and development and will direct and coordinate the efforts of the technical and purchasing departments with the manufacturing department. Mr. Mosher was formerly technical director of the Marvellum Co.

Paisley Products, Inc., New York, have purchased the **Park Leggett Altman Co.**, industrial adhesive manufacturers of Minneapolis, Minn., which will now be known as the **Placo Division** of Paisley Products. The new division of Paisley will also act as sales agents for the parent firm, **Morningstar, Nicol, Inc.**, of New York. **Calvert Leggett**, former president of Park Leggett Altman, joins Paisley as general manager of the new division. The territory to be handled by



C. Leggett

the Placo Division will be Upper and Western Wisconsin, Minnesota, North and South Dakota, Iowa, Nebraska, Wyoming, Montana and Utah.

Ceragraphic, Inc., has purchased the silk-screen printing equipment and other physical assets of **Creative Printmakers, Inc.**, and is operating in its own plant in Newark, N. J. The transaction did not involve the New York plant of Creative Printmakers, as was implied by an item in this department in the November issue. The principals of Ceragraphic, Inc., are **H. J. Warsager**, **Anthony Velonis** and **Harry Knight**, all formerly with Creative.

The appointment of **Jim Lane** to the position of purchasing agent has been announced by **Milprint, Inc.**, Milwaukee packaging converters, to succeed **Walter McCarty**.

The **Charles Cruze** organization of packaging designers has moved into its own new modern building at 2340 W. Third St., Los Angeles.

Willard D. Smith has been appointed assistant to the president of **Pope & Gray, Inc.**, New York and Cleveland, makers of printing and lithographic inks.

Robert C. von Maur has been named manager of the central sales district, with headquarters in Detroit, for **The Champion Paper & Fibre Co.** of Hamilton, Ohio. **Jack Moore, Jr.**, is now associated with the Champion sales staff at Hamilton.

Michael Saphier Associates, industrial designers, have opened new offices at 19 W. 44th St., New York.

Stein, Hall & Co., Inc., of New York has opened a new sales office in Atlanta, Ga., at 364 Nelson St., S. W. The sales area to be covered is Georgia, Alabama and Florida. Stein, Hall & Co. supplies the textile, food, adhesive, paper and corrugating industries with basic industrial commodities and specialties.

Hope Paper Co. has moved its offices and plant from 35 W. Third St., New York, to 292 Ellery St., Brooklyn.

Appointment of **W. H. Peterson** as manager of the Chicago office is announced by **Enjay Co., Inc.**, chemical marketing affiliate of **Esso Standard Oil Co.** Mr. Peterson will continue as Midwest sales representative for the company's rubber and plastics products.

James F. Cole, district sales manager for **Continental Can Co.** at Tampa, Fla., has retired after 42 years of service in the can-making industry and 20 years with Continental. He is succeeded by **Bert I. Hickman**, product sales manager for processed food cans at the New York office.

The Artistic Packaging Corp. has been established at 136 Spring St., New York, for the manufacture of machine- and hand-made boxes. Officers are **H. G. Aschbach**, president (formerly with Imperial Paper Box Corp., Brooklyn, and Shoup-Owens, Inc., Hoboken, N. J.); **Morris Gold**, vice

REG. U. S. PAT. OFF.

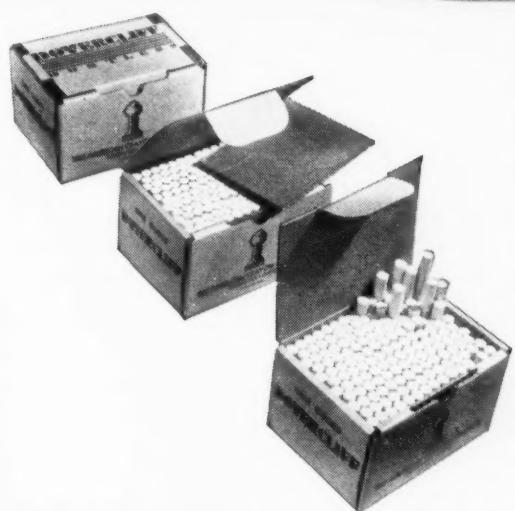
H&D BOXES

HINDE & DAUCH
Authority on Packaging

Executive Offices: 4901 Decatur St. • Sandusky, O.

FACTORIES IN:

Baltimore 13, Md. • Buffalo 6, N. Y. • Chatham, Ontario
Chicago 32, Illinois • Cleveland 2, Ohio • Detroit 27,
Mich. • Gloucester, N. J. • Hoboken, N. J. • Kansas
City 19, Kansas • Lenoir, N. C. • Montreal, Quebec
Richmond 12, Va. • St. Louis 15, Mo. • Sandusky, Ohio
Toronto, Ontario • Watertown, Mass.



Even chalk responds to the magic touch of H & D packaging—of making the package a part of the product. This shelf package, several of which are packed in a master shipping box, affords adequate protection for a delicate, brittle substance. Distinctive one-color printing on a white surface is outstanding in eye appeal, promotes the brand name, commands customer attention. Tuck-in tab increases after-use convenience.

The Package Prompts the Purchase

Because this H & D box reduces packaging costs approximately 50% in addition to providing better product protection than the previous method of packaging, it is definitely part of the product. The economies it effects are felt by manufacturer, dealer and consumer. The box, developed in the H & D Package Laboratory, is engineered to the product, with no excess weight or bulk.



This corrugated H & D Prepak* is a major factor in the sales success of the product. The box is factory-packed to eliminate repacking and wrapping by the retailer, thereby reducing sales costs. The Prepak* is also a colorful counter or window display that stops traffic and increases sales. It is printed in 2 colors on lawn-green linen finish corrugated board. If your product can be packed in "units" or "sets," consider H & D Prepak*—the most economical way to pack and sell retail merchandise.

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A flexibly designed, yet simply constructed machine for accurate and repeated splash-free delivery of pre-determined quantities of liquid into ampuls, vials or other similar containers. Liquids of viscosities ranging from aqueous solutions to medium oils may be filled into containers of a capacity of from 1 cc. to 20 cc. Motor speed variable from 6 to 50 strokes per minute.

Write for literature on the AMPFIL and other washing, and sealing equipment.

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Faster Filling with the ANDERSON PORTABLE BAGGER

Designed to handle foods, confections, and numerous products in metal, plastic, wood, and rubber. Operates with a minimum of effort at a maximum speed.

Simple adjustment for height...tilting forward or backward enables the operator to set machine at easiest working position.

Stainless steel trough with capacity of 200 bags. Adjustable to bag sizes. Blower with filter keeps bags clean and free from foreign matter.

Send for Bulletin No. 1-29

ANDERSON BROS. MFG. CO.
ROCKFORD, ILLINOIS



Plants and People (Continued)

president, and **Irving Elias**, treasurer (co-founders of the Artistic Paper Box Co. in 1917); and **H. L. Dikeman**, secretary (former treasurer of Shoup-Owens, Inc.).

International Printing Ink Corp., Ltd., of California announces the appointment of **Paul N. Baxter** as manager of its Los Angeles branch. Mr. Baxter takes over his new duties after 18 years with IPI in the Middle West. He is well known to Chicago and Middle West printers as an active figure in graphic arts organizations.



P. N. Baxter

A new warehouse has been established by the **Chain Belt Co.** at 878 Ashby St., N. W., in Atlanta, Ga. The Atlanta district office will also be located there, under the direction of **J. S. Moore**, district manager. The new warehouse will be supervised by **G. J. Schuelke**, recently of the Milwaukee office, and will serve the entire Southeast.

Miss Ann Levy has been appointed assistant secretary of **Century Ribbon Mills, Inc.**, New York.

Acorn Packaging & Packing Corp., bulk packaging suppliers, have acquired a new packing plant in the Bush Terminal district of Brooklyn to handle increasing overseas shipments of heavy machinery. The new plant is located at 8 Whale Sq., at the foot of 53rd St. and First Ave.

The appointment of **Marland S. Wolf** as general sales manager of the **Wood Conversion Co.**, St. Paul, Minn., has recently been announced. Mr. Wolf, formerly with the



M. S. Wolf

U. S. Gypsum Co., and author of several books on home insulation and modernization, will direct the sales programs from the company's offices in St. Paul.

The Safeway Chemical Co. of Cleveland, Ohio, is no longer a subsidiary of **Products Packaging, Inc.**, but has merged with the parent company. This means a change in name only; officers and address remain the same. The firm has a contract packaging service for makers of automotive, household chemical and other specialties.

The Sealed Liquids Co. of New York announces the acquisition of new and larger quarters at 764 Bruckner Blvd. Telephone number is Dayton 9-2643.

Kurt Niemeyer has been named field engineer for the **New Jersey Machine Corp.** of Hoboken, N. J. His new territory ranges from Texas to Minnesota and from the Rockies to the Pennsylvania line.

Bob Mittricker, Chicago branch manager of New Jersey Machine Corp., has retired after 30 years of continuous service with the corporation. His duties in Chicago have been taken over by **James Parsons**.

John Shaw, former manager of the Detroit office of Steimar Co., has been appointed to the Chicago sales of **Einson-Freeman Co., Inc.**, lithographers, Long Island City, N. Y. **Wally Fraser**, former New York representa-



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Plants and People

(Continued)

tive of Display Corp. and previously with *Fortune* and Scripps-Howard, has been appointed to the New York sales staff of Einson-Freeman. **T** Edwards will represent the firm in Atlanta, Ga.

Bernard Schardt and **Eugene Morley**, formerly of Creative Printmakers, Inc., announce the formation of **Schardt & Morley, Inc.**, with a new plant at 1020 E. 48th St., Brooklyn, for the decoration of glass containers. The firm will specialize in the permanent labeling of glass by the use of ceramic pigments fused into the glass in a high-temperature lehr. Complete equipment for this has been installed.

The Packaging Division of **E. W. Twitchell, Inc.**, designers and suppliers of packaging for industry, announce a move to larger quarters at 2801 N. Third St., Philadelphia.

Wilson & Geo. Meyer & Co., Pacific Coast distributors of Tenite molding powder and Kodapak acetate sheet manufactured by Eastman Kodak Co., is constructing a \$150,000 warehouse and office building at District Blvd. and Gifford Ave., Los Angeles, to serve Southern California, Arizona, Utah, Colorado and New Mexico.

W. F. Powell has been appointed assistant sales manager at the Memphis plant of **Bemis Bro. Bag Co.** of St. Louis, Mo. Also announced by Bemis is the appointment of **John T. Braxtan** as office manager at Minneapolis.

The Crescent Ink & Color Co. has added another building to its plant at Camden, N. J., the fourth major expansion since the construction of the main building in 1924. A 50% increase in production is anticipated.

Winner of the contest sponsored by **The Rhinelander Paper Co.**, Rhinelander, Wis., for the naming of their new glassine paper machine was Otto Stark, a Rhinelander employee. "Ripeo Maid" was the name selected for the companion to the company's "Big Swede" machine.



Joseph P. Thomas, president of the U. S. Printing & Lithograph Co., died on Dec. 9 after a long illness. Originally with the Theodore A. Schmidt Division of that company, he became president of the parent company in 1938. Mr. Thomas was a past president of the National Label Mfrs. Assn. and served as a director of the Folding Paper Box Assn. of America.

George H. Harvey, 82, former director and production manager of **The Gardner-Richardson Co.** of Middletown, Ohio, died recently. He was a founder of the company.

Warren H. Bennett, sales promotion manager of **Arabol Mfg. Co.**, died Nov. 20 at the U. S. Naval Hospital, St. Albans, N. Y., after several months' illness.

Marshall Haywood, head of the **Haywood Publishing Co.**, Chicago, died on Dec. 8 after an extended illness.

Sidney A. Maddocks, sales representative for **Union Paste Co.** of Hyde Park, Mass., for 25 years, died on Nov. 27.

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They tell their own story of quality workmanship—superior sales pulling design—lustrous sparkling colors... Get our quotations and you will be convinced that Miller & Miller prices are low.

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Quote on label attached in
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a HELPFUL GUIDE to choosing the right ALSECO closure for your product

To help you choose the right closure for your product, we are offering this information-packed, 24-page booklet, "Alseco Seals". Ten different types of aluminum closures, and the Alseco *tailor-made* method of application, are described in detail. Full specifications on their sizes, special features, glass finish, principal uses, and type of Alseco Sealing Machine best suited to apply them. What's more, seven pages of this booklet describe these various kinds of sealing machines . . . what they are designed to do . . . speeds and sizes. So use the handy coupon below. Write for your free copy of "Alseco Seals".

FIND OUT HOW...

1. The Alseco Pilferproof RO stops pilferage—provides a hermetic seal—can be used as a tight, sanitary reclosure.
2. The TopSide RO gives the double protection of both a top and side seal—yet opens with an easy twist of the wrist.
3. The Stericap maintains sterility for medical products—keeps container tamperproof and provides easy access to the contents.
4. The HyTop RO (specially designed threaded closure for Catsup and Chili Sauce) retains vacuum indefinitely; gives new sales-appeal to these products.
5. Alseco Sealing Machines apply "Tailor-Made" caps—at speeds up to 300 per minute—with less breakage, fewer shutdowns on the production line.



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ST 5176



For Your Information

The National Printing Ink Research Institute at Lehigh University, Bethlehem, Pa., played host to a group of graphic art business paper editors recently. The Institute, established 2½ years ago, held its first press tour of inspection of the facilities, including research and testing laboratories and research library. **Dr. Albert C. Zettlemoyer**, chemistry professor at Lehigh, is research director.

The final draft of standard specifications for wooden warehouse or returnable pallets has been adopted by the **National Wooden Pallet Mfrs. Assn.** The standards are recommended minimum specifications as suggested by the wooden pallet industry. They will be published and released at the 3rd National Materials Handling Exposition being held in Philadelphia from Jan. 10 through 14. Copies may be obtained at exposition booth No. 601 of the National Wooden Box Assn.

Irving M. Peters, traffic manager of the Corn Products Refining Co., has been named general chairman of the National Management Committee of the **Assn. of American Railroads** for the **1949 Perfect Shipping Campaign**. The campaign will be conducted during the month of April and will be sponsored by the 13 regional Shippers Advisory Boards, the AAR, the Railway Express and other shipping interests. Serving with Mr. Peters as regional vice chairmen are: **J. J. Kornfeld**, New Orleans Public Service; **A. P. Little**, Dennison Mfg. Co.; **A. C. Street**, Safeway Stores; **H. F. Easterling**, Brown Paper Mill Co., and **H. E. Chapman**, S. S. Kresge Co.

Suppliers of packaging materials used in the baking industry are being extended a special invitation to exhibit at the **1949 Baking Industry Exposition** in Atlantic City which will be held during the annual convention of **Ameri-**

Cans with Sales Appeal

A complete custom service from sketch to a finished product that is exclusively yours. Your lithographed containers combine easy brand identification with ideal product protection.

We also manufacture a complete line of round cans with stock designs for candies and cookies.

Let Empire quote on your requirements. We should get acquainted.



"No other container protects like the can"

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What's doing

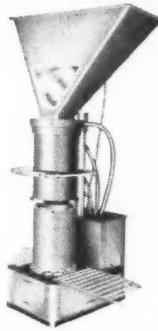
- Jan. 14-20—Annual conventions of **National Canners Assn.** and allied groups, Atlantic City.
- Jan. 15-19—**Canners' Show**, Convention Hall, Atlantic City.
- Jan. 25-29—**National Potato Chip Institute**, Edgewater Beach Hotel, Chicago.
- Jan. 27-28—**National Dairy Council**, Robert E. Lee Hotel, Winston-Salem, N. C.
- Jan. 31-Feb. 11—**Chicago Gift Show**, Palmer House, Chicago.
- Feb. 7-10—**American Warehousemen's Assn.** 58th annual meeting, Fairmount and Mark Hopkins Hotels, San Francisco.
- Feb. 14-17—**United Fresh Fruit & Vegetable Assn.**, Hotel Stevens, Chicago.
- Feb. 21-24—**Technical Assn. of the Pulp & Paper Industry**, annual meeting, Hotel Commodore, New York.
- Feb. 21-25—**New York Gift Show**, Hotels New Yorker and Pennsylvania, New York.
- Feb. 28-March 4—**American Society for Testing Materials**, Edgewater Beach Hotel, Chicago.

These well-known products are packaged at lower cost with General Mills Machines

Looking for faster, cheaper packaging for your product? Take a tip from some of the nation's top manufacturers—investigate the cost-cutting results offered by General Mills' line of specialized equipment.

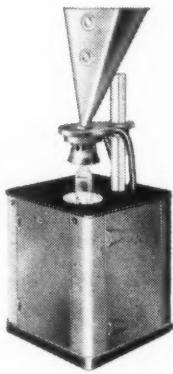


VACUFLOW POWDER FILLERS



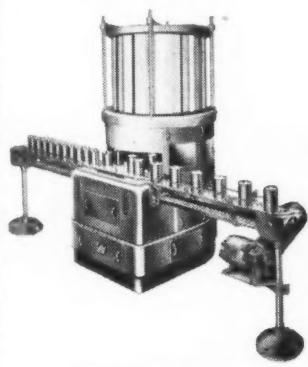
MODEL E

Fills bulk containers up to 200 pounds in capacity. Operator positions containers and the machine fills them to a precise weight automatically.



MODEL D

Handles small and medium-size containers fed manually. Ideal for the manufacturer with low tonnage production on a wide range of products.



ROTARY MODEL

Fills up to 300 containers a minute automatically. Handles a wide variety of sizes of cans, jars, small-mouth bottles and cartons. Available with 8, 12, 16, or 24 filling heads.

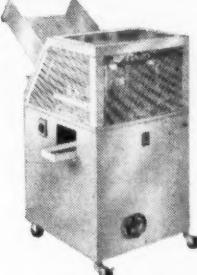
These machines use a new precision method of drawing powdered products into containers by means of an intermittent vacuum. This permits complete control over weight and density of powders, resulting in amazing accuracy and high filling speeds. All working parts are completely dust sealed; filling rooms offer clean, dustless working conditions.

TRAY-LOCK MACHINE



Forms lock-type trays and

FINISHED-EDGE CARTON FORMER



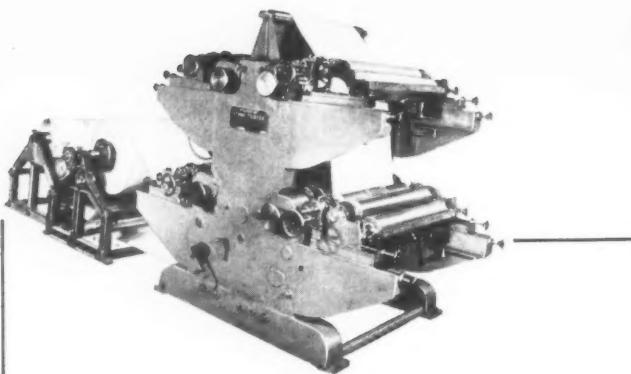
Sets up open-top double-wall trays and cartons

Completely automatic, these machines deliver ready-to-fill trays and cartons at speeds up to 90 per minute. Both units produce a wide variety of tray and carton sizes and styles, all neatly squared with sturdy, straight sides. Either machine plugs into your regular 110-volt circuit.

Full details regarding any of these machines will be sent on request. Address Dept. M19, General Mills, Inc., 1620 Central Ave., Minneapolis 13, Minn.

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The Wolverine Hydro-Printer is the most modern hydraulic press on the market, embodying technical features that are entirely new and unique.

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For Your Information

(Continued)

can Bakers Assn. Oct. 15 through 20. Gerard R. Williams, Williams Bakery, Scranton, Pa., is chairman of the management committee. Requests for the exposition prospectus, including floor plan of the Municipal Auditorium, may be obtained by writing the American Bakers Assn., 20 N. Wacker Drive, Chicago.

As part of the program for the 31st annual convention of the National Paper Box Mfrs. Assn. a series of round table sessions on sales, costs, production, design, plant layout, etc., are being planned, according to a recent announcement. The annual meeting is scheduled from May 15 through 18 at the Waldorf-Astoria, New York.

Number five in the Wayne University Studies in Air Transport, "Markets for Airborne Seafoods," written by S. A. Larsen, W. Reitz and K. K. Burgum, contains a discussion of packaging fresh seafood for air shipment. In the chapter on packaging the following topics are considered: conventional containers for shipping seafood, specifications for iceless containers, specifications for inner packaging, container construction, time-temperature test, comparative costs of air and surface shipments and a marketing guide. Copies may be obtained from the Wayne University Press, 474 W. Warren, Detroit, Mich., at \$2 each.

Students of the Franklin School of Professional Art in New York can take a course in package design which closely parallels the procedure of a professional designer or design organization. The school is offering the course under the supervision of Albro F. Downe, member of Lippincott & Margulies, Inc., New York design firm.

The U. S. Radium Corp. has issued a new 8-page illustrated bulletin on the application of its Ionotron Static Eliminator in the printing, packaging, sheeting, bag making, folding and coating fields. Copies of the bulletin may be secured from the company, 535 Pearl St., New York.

Interesting samples of its work have been illustrated in a new promotion brochure issued by Kay, Inc., New York, creators of point-of-sale advertising displays. "Displays by Kay" may be obtained from the firm at 9 E. 40th St.

Harry J. Ferguson Co., Jenkintown, Pa., announces a new 24-page catalog covering the company's line of gravity conveyors. Specifications, data and capacities of the line of wheel conveyors are also included. Free copies may be secured by writing the company.

Sylvania Division of American Viscose Corp. has issued a new price list on cellophane which became effective on all orders accepted after Jan. 1. Orders before that date, even though delivered this year, are unaffected. The list, with a few adjustments in prices, also includes the new designations given to Sylvania cellophane which indicate the chief characteristics and grades of the sheeting.

Edward Stern & Co., Inc., Philadelphia printing company, has issued its fifth report on "Preferences in Industrial Literature," a market research survey on industrial literature. This year's survey pays particular attention, it is reported, to stockholder relations, media promotion and dealer promotion. Requests for copies should be sent to the company at Sixth and Cherry Sts.

**It's clear
to see...**

**a SHOWBAG
affords the
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TRANSPARENCY... PROTECTION... ADAPTABILITY...

Ideal packaging for hundreds of products is an economical, tough, transparent container . . . SHOWBAG. For the fragile luxury of bath salts and flowers or the sturdy demands of liners for barrels and drums, SHOWBAG meets all needs.

These versatile packages of polythene, pliofilm and other thermoplastics are light, flexible and distinctively attractive. Their glistening surface takes color imprinting beautifully. They are highly resistant to tear, abrasion and moisture vapor.

Simple heat sealing methods make SHOWBAGS among the most economical packages available.

For low-cost vapor and moisture-proof packaging, investigate SHOWBAGS. Write for samples and packaging suggestions, without obligation.

*Some of the products
for which
SHOWBAGS
are particularly suited*

- Bath Salts
- Cosmetics
- Candy
- Coffee
- Tea
- Nuts
- Tobacco
- Cheese
- Dry Foods
- Foods in Sauce
- Frozen Foods
- Many Drugs
- Tools
- Hardware
- Sporting Goods
- Gift Items

*Ideal for the best export pack-
ing as bags and case liners.*

Plastics Division

CENTRAL STATES PAPER & BAG CO.

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Our booklet gives you all the details to prove the conclusive superiority of this Four Color Anilox Press. It also describes and illustrates our other precision-constructed machines that assure minimum maintenance expense and maximum working efficiency.

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TODAY.

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QUALITY
CANS



QUALITY
SERVICE

The primary service aim of Eastern Can Co. is to prevent the occurrence of packaging problems and complications which may cause our customers troublesome delays. To this end, Eastern performs a variety of research functions and certifies that all deliveries will be made promptly. Visit our sample show room before you purchase.

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U.S. Patents Digest

Edited by H. A. Levey

This digest includes each month the more important patents which are of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at 25 cents each in currency, money order or certified check; postage stamps are not accepted.

Combined Package and Filling Device for Batteries or Hollow Bodies, V. D. Hauck (to Bendix Aviation Corp., South Bend, Ind.). U. S. 2,452,049, Oct. 26. In a combined package and filling device for hollow bodies, a substantially evacuated hollow chamber, a closed breakable liquid-containing vessel in the upper portion of chamber, a hollow body in lower portion of chamber adapted to be filled with said liquid, said body having a plurality of downwardly directed filling openings, chamber having a wall adjacent the vessel sufficiently flexible to enable vessel to be broken by external blow against wall, whereby liquid will discharge and find a level in lower portion of chamber.

Can Body, B. F. Saubestre (to American Can Co., New York, N. Y.). U. S. 2,452,071, Oct. 26. A reinforced can body capable of resisting high internal pressures and having inner and outer marginal hook edges bent in opposite directions along predetermined lines of fold interlocked in a side seam and secured together in a solder bond in the side seam.

Method of Securing Identification Tags to Seals, E. Brooks, Califon, N. J. U. S. 2,452,098, Oct. 26. The method of securing an identification tag to bag-sealing means, which bag-sealing means consist of a sealing and gripping member composed of a flat sleeve of deformable sheet material and of a double-end flexible strand threaded and rethreaded through said sleeve to form loops to be passed and tightened around the material of the bag mouth.

Egg Carton, W. J. Roberts, North Little Rock, Ark. U. S. 2,452,150, Oct. 26. A packing container for shipping, storing and candling eggs comprising an elongated carton having a plurality of openings in the front wall uniformly spaced apart longitudinally of said wall and an equal number of spaced-apart openings in the bottom with a plurality of side-by-side arrangements in the carton in the form of trays, each individual tray comprising four downwardly-converging inner walls.

Device for Automatically Inserting Marking Strips in Piles of Sheets, L. Namenyi-Katz (to English Numbering Machines, Ltd., London, England). U. S. 2,452,138, Oct. 26. A device for automatically inserting marking strips in piles of sheets at predetermined numbers arranged to be associated in driving connection with the machine delivering counted sheets.

Packaging, F. B. Arnold, New York, N. Y. U. S. 2,452,174 Oct. 26. A commercial package comprising a fruit and a container enclosing same comprising two generally hemispherical, pre-formed, form-retaining halves meeting at their edge portions and secured together, said halves being made of strong, flexible, transparent, shock-resisting plastic material capable of withstanding handling and shipment by mail.

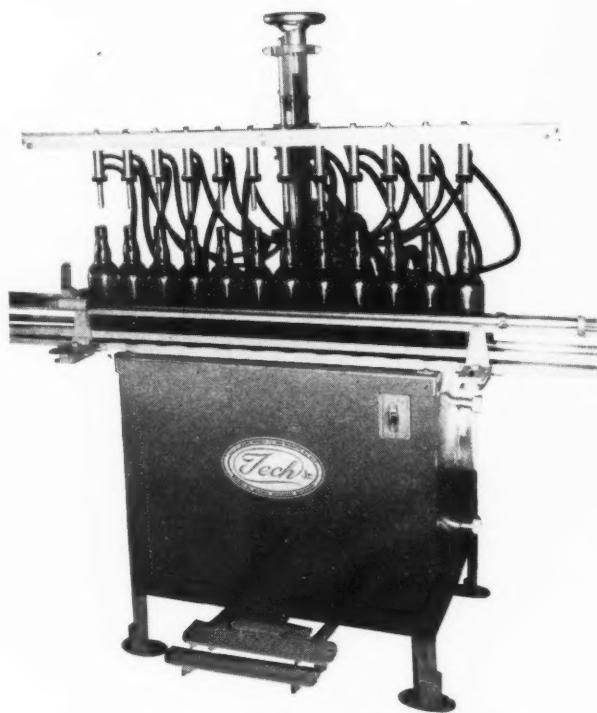
Crate for Water Bottles or Acid Carboys, C. E. Johnson, Alhambra, Calif. U. S. 2,452,195, Oct. 26. A crate for a bottle comprising a metal frame including a base member, four corner posts united to base, corner posts having bases and side portions arranged to form a channel-shaped section, with the bases of posts turned inwardly of frame to provide contact-supporting members for the water bottle to be received by frame.

Method and Packing Structure for High Packing Handled Baskets with Fruit, J. A. McCormick (to Fruit and Produce Packing, Inc., Indianapolis, Ind.). U. S. 2,452,204, Oct. 26. The method of packing fruits, vegetables and the like in a handled container having bottom forming portions, consisting in inverting the container and nesting it in a receiving and supporting form of a depth at least as great as the height of the container handle; container being packed through open bottom thereof and while in inverted position, closing portion and securing them in closed bottom position over pack, inverting the form and packed container nested therein, then removing form from container.

Rotary Lock Box, P. A. Derham (to Victor Metal Products Corp., Brooklyn, N. Y.). U. S. 2,452,230, Oct. 26. In a rotary lock box, a square cover part and a square container part, said parts having contacting flat surfaces and cooperating cylindrical

MODERN PACKAGING

"TECH" Jr. FILLS BOTTLES WITHOUT DRIP!



The VACUUM FILLING UNIT FOR SMALL PLANTS

A feature of this sturdy, fully adjustable unit, as in all "Tech" models, is the full drip control system, assuring retention of excess liquids that may remain in the tubes when they are removed from containers.

OTHER FEATURES INCLUDE:

1. Chrome, nickel, stainless steel, neoprene or rubber at all liquid contact points, as required.
2. Fills containers with capacities of 1 oz. to 1 gallon, through openings from $\frac{1}{8}$ inch to 70 mm cap size.
3. Simple to operate.
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If you are filling liquids into sprinkler-top bottles, let us demonstrate our new "Fracture-Proof" sprinkler top filling spout assembly.

Write for folder describing the
"Tech" Jr. Vacuum Filling Machine.

AFOTEX PRODUCTS COMPANY

Packing Engineers for over 30 years! Supplying—Labeling, Washing, Filling, Capping and special machinery. Work table and overhead carton conveyors.

NEW BRUNSWICK,

NEW JERSEY

WHY GAMBLE WITH SALES

WHEN
YOU CAN
PACKAGE
IN THESE
CONTAINERS



There's no gambling with sales when you package your product in these English-made lithographed and embossed metal containers. Their reuse value, their traditionally fine craftsmanship and their striking beauty do an outstanding job of selling for you. These containers will turn window shoppers into buyers, as has been proven with teas, stationery, candies, nuts and other specialty items.

Every one a packaging ace, these beautiful containers are especially suited for Easter and Mother's Day promotions. They cost much less than you'd believe possible. There are twenty-eight designs and various sizes.

Write for details today.

Fancy Container Division

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SAVES PAPER,
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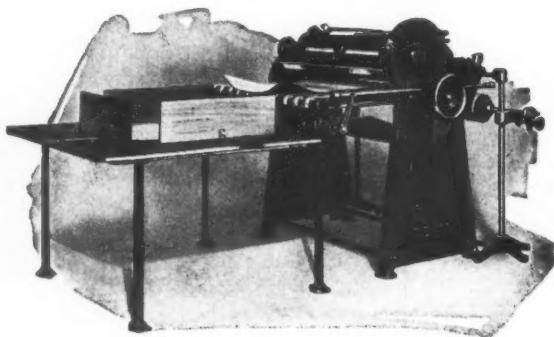
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U.S. Patents Digest (Continued)

laterally extending guiding surfaces, the guiding surfaces having a common axis perpendicular to the flat surfaces and means for separably locking the parts in position to form a square box.

Bottle Packing Machine, K. B. Holstebroe and L. Wimmer (to Standard-Knapp Corp., Portland, Conn.). U. S. 2,452,376, Oct. 26. A mechanism for depositing rows of bottles successively in each of a series of successive cases, step-by-step mechanism for feeding the cases successively past the depositing mechanism to receive the bottles.

Sealing and Carrying Device, W. Obernauer (to Ernest Jacobson, New York, N. Y.). U. S. 2,452,485, Oct. 26. A device for sealing and carrying packages, parcels and like articles comprising two endless tapes, flexible handle means equidistantly arranged on and fixed to one of tapes, other of tapes being provided with a plurality of perforations disposed adjacent handle means of said one tape, handle means extending partly through said perforations, respectively, whereby said two tapes are coupled with each other and so arranged for rotatable movement about handle prior to application of tape portions to a package.

Adhesive Tape Applying Device, G. C. Luebkeman, Cincinnati, Ohio (one-half to J. D. Luebkeman, Libertyville, Ill.). U. S. 2,452,584, Nov. 2. A tape applying device comprising a casing to house a roll of adhesive tape and provided with an opening, a shoe pivoted within opening in casing, a yoke shiftably mounted in housing adjacent opening, a presser member on yoke, said presser being retired to interior of casing, and a cutter secured in shoe and presenting its cutting edge toward the roller.

Vending Apparatus, C. C. Colbert (to Nehi Corp., Columbus, Ga.). U. S. 2,452,837, Nov. 2. A dispensing apparatus comprising a plurality of vertical containers, each adapted to receive a plurality of articles to be dispensed, a feeding device arranged beneath each container and adapted to support the articles therein, a conveyor arranged beneath feeding devices and means for advancing conveyor in a given step to dispense an article.

Collar Can Collar Structure, J. Coyle and J. F. Egenolf (to Continental Can Co., Inc., New York, N. Y.). U. S. 2,452,839, Nov. 2. A collar for a can, said collar having upper and lower edge portions disposed in parallel relation throughout the whole circumference of the collar and comprising a band shaped to fit within a can and having its ends overlapped flatwise, the overlapped ends of the band at one edge portion having complementary interlocking notches and tongues.

Bottle Handling Apparatus, R. F. Hammen, Canton, Ohio. U. S. 2,452,927, Nov. 2. Bottle handling apparatus for removing bottles from cases and depositing them in a bottle washing machine and the like, comprising endless conveyors at the loading end of the bottle washing machine, bottle handling means and means for redepositing bottles on conveyors after washing.

Mechanism for Applying Plastic Crowns to Containers, J. Kantor (to The Liquid Carbonic Corp., Chicago, Ill.). U. S. 2,452,934, Nov. 2. In a receptacle crowning apparatus, a crowning throat comprising a plurality of elongated segments arranged about a common axis, each segment having an inturned lip at its lower end, thus providing a capping throat for receiving the neck of a container expandible and contractible at its lower end and having a plunger reciprocable in throat and engageable with a crown on a receptacle.

Carton, F. D. Palmer (to F. D. Palmer, Inc., Chicago, Ill.). U. S. 2,452,952, Nov. 2. A paperboard container having a plurality of side walls joined at their edges to form a tubular body, an end closure with said body, end closure embodying a panel disposed substantially flush with end of body and provided with a peripheral flange having inner portions respectively corresponding to wall of body and extending inwardly, said closure having web portions integrally connecting adjacent ends of inner flange portions, web portions being normally foldable to outwardly projecting position between adjacent ends of an intermediate flange portion, web portions being crimped into the corners of body to form siftproof corner seals.

Can Dumping Machine, R. J. Newton (to California Packing Corp., San Francisco, Calif.). U. S. 2,453,077, Nov. 2. A can dumping machine comprising a frame structure, dumping wheels journaled at the upper part, flexible means rising substantially vertically and passing over dumping wheels, an elevator suspended between and carried by flexible means and means under elevator for engaging and carrying a tray loaded with a layer of cans for inversion with elevator, thereby to dispose the layer of



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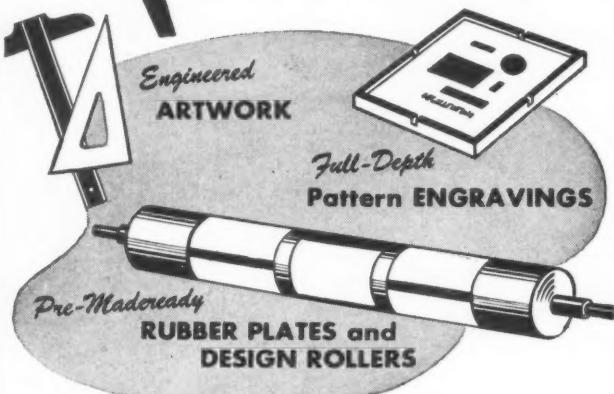
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U.S. Patents Digest

(Continued)

cans below said tray and means for releasing said tray and cans for discharge from elevator when elevator is inverted and inclined.

Tape Dispenser, E. W. Mason, Wyckoff, N. J. U. S. 2,453,028, Nov. 2. A device for dispensing pressure-sensitive adhesive tape, a support for a roll of tape, a frame in which roll of tape is rotatably mounted upon support having cam surface at its upper extremity and a spring knife secured to front surface.

Container, L. E. Richter, Shumway, Ill. U. S. 2,453,159, Nov. 9. A hollow cylindrical container comprising concentric outer and inner side walls with an air space therebetween, a plurality of spaced annular partitions and support members arranged in said air space and dividing same into compartments, a cupped-end cap secured to each end of container and seal rings joining said cupped-end caps to ends of outer side walls.

Blade Container, E. A. Locke, Jr. (to Gillette Safety Razor Co., Boston, Mass.). U. S. 2,453,238, Nov. 9. A container for razor blades and the like comprising an outer enclosure having sides, ends and a cover, each of said ends being apertured, a compartment slidably contained within the enclosure, the cover of the enclosure having a slot communicating with compartment in all positions thereof and a delivery slot at one end.

Lipstick Container, C. Nehrke, New York, N. Y. U. S. 2,453,250, Nov. 9. A lipstick container comprising a housing open at its top, a movable cup arranged in said housing, a resilient means in the base of housing for exerting an upward pressure upon cup, a lipstick mass within the cup, movable cap for the open top of the housing, a sliding flexible strip connecting the movable cap to the movable cup for moving the latter upwardly in the housing to project the lipstick mass above the open top.

Sealing Device, J. J. Serowy, Chicago, Ill. U. S. 2,453,274, Nov. 9. A device for resealing a container at least partially filled with paint once it has been opened so as to preserve the paint contained therein, comprising a multi-part member shaped so that the peripheral edge thereof corresponds to the shape of the inside wall of container, said multi-part member being collapsible for ready insertion into said container, spring means on member and acting on the parts to bias member into engagement with inside container wall at level of paint therein.

Counterbalanced Pivoted Closure, H. W. Walden, New York, N. Y. U. S. 2,453,288, Nov. 9. A container provided with a well open at the top, said receptacle having an open top projecting above the top of the body portion whereby excess contents removed from the receptacle by an instrument may be wiped off on projecting part of receptacle, a hinged cover provided on body portion and having a seat adapted to rest upon the top of the body portion and out of contact with the top of the receptacle, a cover including an arm extending rearwardly of its hinge and constituting a counterbalance to cause the cover to be raised and remain in a raised position when arm is lightly touched.

Bottle Container, W. Von Clemm, Syosset, N. Y. U. S. 2,453,286, Nov. 9. A horizontal carton comprising integrally connected top, bottom and side panels, each provided with a flap at its front end, flaps extending transversely of panels in face-to-face contact and constituting an end of carton, bottom flap being provided with a line of perforations extending parallel and close to its base end and the side flaps being provided with cut-outs in alignment with said line of perforations extending from a point adjacent their bases through their ends, said top and bottom flaps being of less width than the interior of said carton with their edges on lines intersecting the ends of cut-outs.

Combined Spoon and Lid for Containers, R. C. Wilson, Chula Vista, Calif. U. S. 2,453,393, Nov. 9. A combined spoon and lid for containers, the combination of a flat disk-like member having an accurate recessed portion concentrically disposed and radially disposed recessed portions extending from the middle of disk-like member and terminating in arcuate recessed portion, said disk-shaped member adapted to be folded over segment portions in the form of a spoon.

Printing Ink, A. Voet (to J. M. Huber, Inc., New York, N. Y.). U. S. 2,453,558, Nov. 9. An ink consisting essentially of a pigment, a mineral oil vehicle and from about 2 to 20% by weight based on the oil of a petroleum polymer which is fluid at room temperature.

Lard Spray Controlling Means, R. M. Mero (to Continental Can Co., Inc.). U. S. 2,453,527, Nov. 9. The combination of means for feeding cans in processional order, means for spraying



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U.S. Patents Digest

(Continued)

a fluid substance into said cans, a solenoid valve for controlling the spraying means, a solenoid controlling circuit and a control switch connected in said circuit and disposed to be actuated by can contact for causing the valve to open and stay open while a can is passing the spraying means.

Tube-Forming Machine, E. R. Phillips (to Morton Salt Co., Chicago, Ill.). U. S. 2,453,537, Nov. 9. In a paper-tube-forming machine, a rotatable mandrel upon which strips of paper are wound to form the tube, means for rotating said mandrel and continuously stripping therefrom a free end of formed tube.

Controlled Ventilated Container, I. Hill (to The Lawrence Paper Co., Lawrence, Kans.). U. S. 2,453,574, Nov. 9. An egg case comprising a container having bottom, side and end walls, said side and end walls of the container having ventilation openings therein, a liner removably mounted in the container, said liner having a fold line at substantially the center thereof and folded downwardly laterally and upwardly to form a partition, bottom and end panels for the container, said partition separating it into compartments and provided with ventilation openings.

Easy Packing Container, J. R. Belsinger (to Belsinger, Inc., Atlanta, Ga.). U. S. 2,453,614, Nov. 9. A shipping container comprising a relatively tall tubular upright liner defined by a plurality of side-wall panels extending substantially throughout the entire length of the container; upper and lower outer closure sections telescopingly engaging over the opposite end portions of the liner and of such depth as to extend into substantially abutted relation approximately midway the height of the liner, closure section being free to swing outwardly to provide an access opening in the side wall.

Container and Closure Therefor, J. Hohl (to Owens-Illinois Glass Co., a corporation of Ohio). U. S. 2,453,664, Nov. 9. In combination, a container having a generally circular neck defining a filling opening, an annular external bead formed on the neck in close proximity to opening, there being an annular groove immediately beneath the bead and an annular sealing surface below the groove, venting means extending across the bead into groove and a closure for hermetically sealing the container including an attaching skirt.

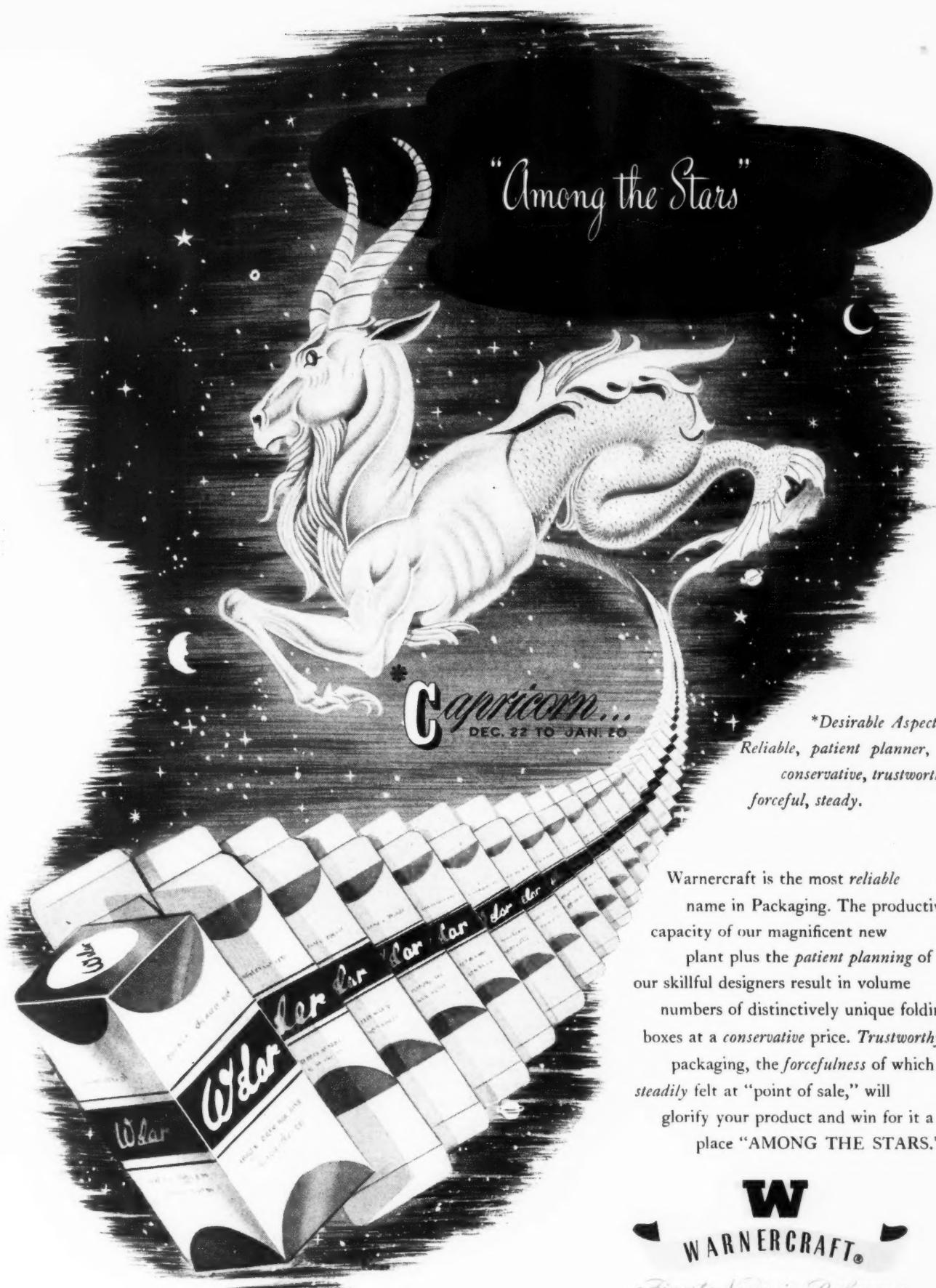
Shipping Carton, S. A. Blackman (to Gaylord Container Corp., St. Louis, Mo.). U. S. 2,453,829, Nov. 16. A shipping carton comprising a tubular body of uniform inside width from end to end having flaps at one end thereof bent to lie alongside the outer side face thereof, a main end closure seated against end of body and having marginal flaps bent to overlie body flaps and then rebent to lie therebeneath and removably interlock therewith; a removable auxiliary end closure snugly fitting entirely within end of tubular body adjacent to body and end closure flaps in spaced relation to main end closure to provide a chamber between end closures.

Machine For Forming Containers From Flexible Material, P. C. Elliot, Dayton, Ohio. U. S. 2,453,836, Nov. 16. In a machine for forming tubular structures from flexible material, a mandrel, means for rotating mandrel, mandrel having means for gripping a strip of material and causing the same to be wound about mandrel to form a tube.

Bottle Carrier, J. Harhay (to Los Angeles Paper Box Factory, Los Angeles, Calif.). U. S. 2,453,908, Nov. 16. An article carrying carton comprising sides that slope continuously toward each other from the bottom to the top of the carton, each side having a transverse opening to receive articles.

Ketchup Dispenser, P. Colaluca, Youngstown, Ohio. U. S. 2,453,974, Nov. 16. A ketchup dispenser consisting of a body member having a distortable tubular member formed thereon insertable in and removable from the neck portion of a ketchup bottle, a passageway defined by said member and a delivery passageway in body member in communication therewith, a screw type conveyor rotatably positioned in passageway and a rack and pinion gear for imparting movement to screw type conveyor and having a handle pivotally connected to said rack.

Bottle Closure, S. Bloomfield (to C. E. Hovey, Kansas City, Mo.). U. S. 2,454,126, Nov. 16. For a bottle having an open mouth defined by an annular lip and a crown cap for said mouth, cap being provided with an annular skirt terminating in a free edge below the lip of bottle when the cap is operably mounted on the bottle, a combined sealing and cap removal device of flexible material with gasket portion being disposable within said cap.



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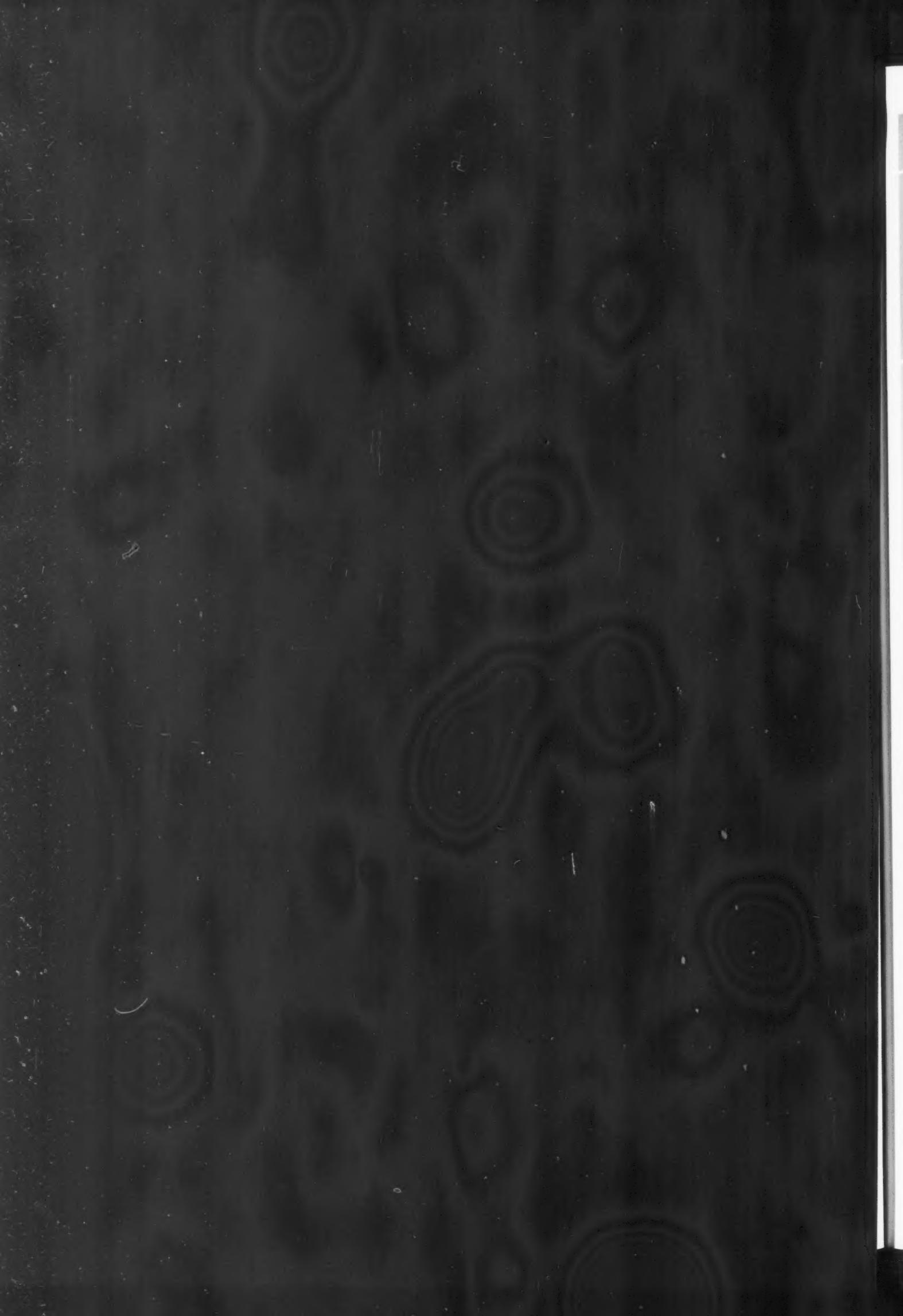


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The outlook for 1949

(Continued from page 83) in force definitely until July 1, 1949, and there is a good possibility of their being extended by Congress beyond that date. The 1949 production, even with these regulations, could show an increase. Deliveries are about normal; prices will depend on basic steel and labor costs.

FIBRE CANS AND TUBES. This field, in contrast to liquid-tight containers, showed an increase of 5% in its 390,000-ton production for 1948, although present supply is somewhat in excess of demand. Prospects for 1949 are good, with another 5% increase in production likely. Deliveries take two to four weeks, which is nearly normal. Prices will depend on cost of materials.

GLASS CONTAINERS. From the point of view of the purchaser, this field shows marked improvement over previous years, because the supply situation is so much easier. The year's total of something like 14 billion units was 12 to 15% below 1947's figure and was sufficient to meet all demands. Supply and demand are in good balance now; deliveries are satisfactory—almost the same as the prewar normal. Various manufacturers are revamping plant facilities in the direction of gasification; when changes are completed, production will probably be quicker and cheaper. Buyers are finding considerably more willingness on the part of manufacturers to make special molds and many of the manufacturers have introduced new stock styles that have high individuality. The one-trip beer bottle, introduced as a weapon in the perpetual war between can and bottle, has not made as much headway as expected in place of the multi-use bottle. A trend to watch in this field is the rapid extension of applied color labeling.

Prices are expected to follow the economy generally, and in some quarters it is feared that if basic price figuring is adopted, it will work a hardship on the small producers of glass containers.

COLLAPSIBLE TUBES. Definitely tight is the sure prospect for collapsible tubes, the reason being shortage of raw materials. Tin is still rationed under M-43; lead is scarce and high priced, and aluminum is less plentiful. The 1948 production of tubes totaled 576 billion units, a decline of 25% from the 1947 figure. Some decrease had been anticipated by the industry, though not as deep a cut as came. Deliveries are being made on a normal two-weeks' basis at the present time, but the purchaser should allow plenty of time in placing orders and is justified in maintaining generous inventory. If lead and aluminum prices advance, naturally collapsible tube prices will go up too. In this particular industry, many things can happen; one thing that is a certainty is that in the event of war the collapsible tube will be one of the first packages drafted for priority service.

CLOSURES. Included in this category are metal closures for commercial purposes, plastic closures for glass containers and collapsible tubes, and crown caps. In *metal closures*, there was a slight gain in production in 1948 compared with 1947. In *plastic closures*, there

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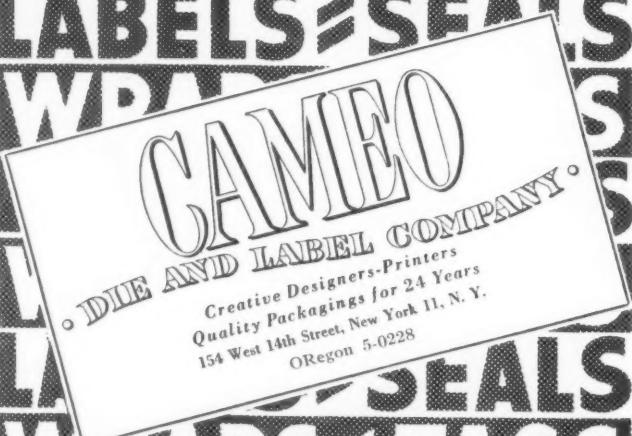
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was a decrease of 11 to 12%, partly in sympathy with the decrease in collapsible tube production and partly because of ureas early in the year. *Crown caps* showed an increase of 9% over 1947. At present there seem to be no supply problems beyond those for which steel is responsible. Delivery time required is somewhat longer than normal. Indications are that prices will move with general business conditions. Department of Commerce figures are as follows:

	1947	1948
Metal closures	8,814,618,000 units	8,863,000,000 units
Plastic closures	2,230,166,000 units	1,972,300,000 units
(incl. caps for tubes)		
Crown caps	47,712,700,000 units	51,897,600,000 units

STEEL SHIPPING CONTAINERS. Demand continues to exceed supply in this field, in which the total tonnage of a million tons for 1948 probably represents 52 to 60% of capacity. Basic steel prices will control the price curve for steel shipping containers. Prospects for 1949 are for a further decline from 1948 figures—not because of any lack of demand, but because of steel allocation. The industry continues to push its research program and currently reports improvements in lined containers, welding techniques and lithographed finishes. Ample time for ordering should be allowed, as deliveries are firmly scheduled by allocation to contract customers.

FIBRE DRUMS. This field is in pleasing contrast to the situation in steel drums. The total production for 1948 was 17,400,000 units—a 2 1/2% increase over the preceding year—and currently supply exceeds the demand for the first time in several years. This year is expected to show an advance of 5 to 7% in production, the only qualification being the availability of steel for drum heads and closures. At least two new plants are coming into production, which should assure the purchaser ample capacity to meet growing demands. The industry is making immediate delivery of stock sizes, while special sizes require about two weeks. These dates are normal, but because of the steel situation buyers should place orders as far in advance as possible, scheduling delivery against needs. An increase in the merchandising use of package surface has been noted in this field by means of color, spray painting, printing and large labels. The price curve may take a slight upturn due to increasing labor costs and freight rates.

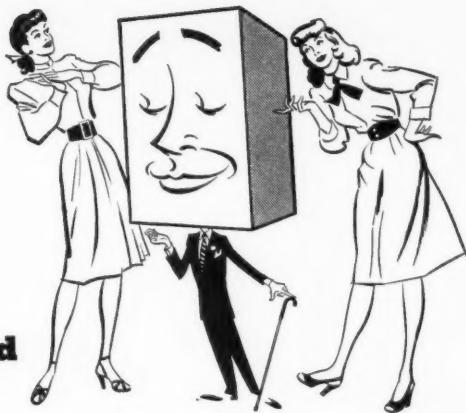
TEXTILE BAGS. The 1948 production represents a 16% decline as compared with 1947. During 1948, 600 million yards of cotton and 700 million yards of burlap were used. Apparently supplies on hand are ample, although the longshoremen's strike late in 1948 interrupted the steady flow of burlap from India. The industry anticipates increased production for 1949, particularly in cotton bags, due to the fact that many large bakers who were receiving their flour in paper bags are now ordering it in cotton. Five weeks is the maximum time for delivery except in the case of special requirements or constructions. Contract schedules, with bags already cut and printed, permit overnight deliveries.

While burlap prices advanced rather sharply late in

Popular

because they're prepared
for **EASY BAKING**

and packaged on **PNEUMATIC EQUIPMENT!**



PREPARED FLOURS

PILLSBURY PIE CRUST MIX
BISQUICK
SWANSDOWN CAKE FLOUR
FLAKO PIE CRUST
JEWEL'S WAFFLE MIX
DROMEDARY GINGERBREAD MIX
KIRK'S WHOLE WHEAT FLOUR
VIRGINIA SWEET PANCAKE FLOUR
CINCH CORN BREAD MIX
JIFFY PIE CRUST MIX
PILLSBURY SNO-SHEEN CAKE FLOUR
AIRY FAIRY COFFEE CAKE MIX
BALLARD'S PANCAKE FLOUR
PYEQUICK
AUNT JEMIMA PANCAKE MIX
PILLSBURY PANCAKE MIX
VELVET CAKE MIX

Yes—packaging can and does have a great deal to do with product popularity. Packaging that adequately protects the product yet makes its use easy, contributes a great deal to consumer satisfaction.

And packaging equipment that operates smoothly, without breakdown, with minimum maintenance and material waste or spoilage, means money in the producer's pocket. These leading producers of prepared flours keep their packaging standards high and their packaging costs low by using

Pneumatic equipment. Like other famed merchandisers of all types of packaged goods they have learned that the sounder design, more accurate machining and substantial construction of Pneumatic equipment always result in "Lower Cost Per Container" operation.

★ ★ ★
PNEUMATIC SCALE CORPORATION LTD., 82
Newport Ave., N. Quincy 71, Mass. Branch
Offices in New York, N.Y.; San Francisco,
Cal.; Chicago, Ill.; Los Angeles, Cal.



Battery of Pneumatic Tight Wrapping Machines in operation in Pillsbury Mills' plant at Springfield, Illinois.

PNEUMATIC

LOWER COST PER CONTAINER

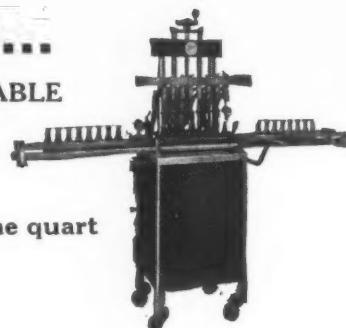
PACKAGING AND BOTTLING MACHINERY

Over ninety different machines for the packaging of dry, free-flowing products and the cleaning, filling, capping and labeling of containers for liquids and semi-liquids

ANNOUNCING...

PACKER JR. PORTABLE LIQUID FILLER

Container sizes:
fractional ounce to one quart
Filling speeds:
Up to 100 containers
per minute



Highest production at lowest cost. Immediate delivery in brass nickel plated or stainless steel. Available in 8-10-12 spouts.

Mounted on free-wheeling casters, the Packer Jr. Vacuum Filling Machine is valuable for small and medium size establishments with a variety of liquid filling requirements. The Packer Jr. fills bottles and cans up to quart size, with pharmaceuticals, cosmetics, foods, chemicals and like products. The rails are adjustable to a width of 4½ inches. Full details will be sent on receipt of your request.

PACKER MACHINERY CORP.
34 Irving Place
New York 3, New York
GRAMERCY 5-8223

BARRIER MATERIALS

- Moisture-vaporproof
- Greaseproof

We manufacture laminated
sheets conforming to
government specifications

AN-B-20

JAN-P-131

JAN-B-121

Information and samples
supplied promptly upon request

THE FLOYD A. HOLES COMPANY
BEDFORD, OHIO

1948, reports indicate that major users of bags are buying only for known requirements. Latest reports from the Calcutta market indicate a price drop is in the offing.

Among buyers of textile bags generally, the feeling seems to be that prices are too high now and consideration is being given to switching to lower priced cotton bags.

Burlap bag production in 1948 approached 125 million for mixed feed bags alone, while burlap potato bags were produced almost to the extent of 100 million.

NAILLED WOOD BOXES. Consumption of 4,350,000,000 board feet for 1948 was 87% of 1947—a sharper drop than had been predicted. At present, supply is more than ample to meet demand and prospects are for that situation to continue in 1949. Buyers are cutting inventories and doing less advance buying. A decline of possibly 5% in 1949 production is anticipated. Delivery time now required is one week to 30 days. An encouraging sign from the standpoint of the wood box-maker is an increasing demand for good export packaging capable of protection that expedites shipment, warehousing and distribution. Price changes are not anticipated unless labor increases occur.

WIREBOUND BOXES. The 1948 production of 120,000,000 wirebound containers was 95% of the 1947 figure. Present supply is equal to or better than demand and 1949, it is anticipated, will show a still further decrease of perhaps 10% below 1948. Thirty days is the maximum requirement for delivery time, as conditions are quite normal in this field. The buyer may expect a slight decrease in costs for 1949. As is the case of the nailed wood box, users of these packages are manifesting a greater consciousness of quality, proper design and engineering.

MACHINERY

From the point of view of the buyer, the packaging machinery picture shows marked improvement. With the majority of manufacturers, delivery time is considerably better as compared with a year ago and in many instances approaches the pre-war practice. The backlog, which just a year ago was considered big enough to last until 1950 in some instances, has quite generally melted away—so fast as to indicate widespread duplications in the placement of orders that have since been canceled.

Availability of raw materials for the manufacturer of machinery is not the dead-end street that it was. Last year's specific shortages included a number of highly critical items. In spite of the fact that steel is still critically short, the machinery maker in most instances is able to get enough metal to keep up a good rate of production. Unless the world picture in political and military matters changes suddenly, the machinery buyer in 1949 will be very much happier than he has been in several years.

Price fluctuations may be expected and the curve will



Plastic cap for Therm-a-Jug—
another example of O-I's specialization in small plastics.

SMALL PLASTICS OF GREAT PRECISION

- Do you need a small plastic, made to precision standards, in big volume? That's a need we specialize in filling.

Take the plastic cap for the Therm-a-Jug pictured above. To insure keeping food or liquid hot or cold, Therm-a-Jug's manufacturer relies on a deep-threaded, quick-sealing cap—precision molded by Owens-Illinois.

Your plastic needs guide our engineers in design and selection of the most efficient molding process from our *complete* modern facilities. High-speed, automatic machines then turn out your item *at low cost*.

Let us show you how the small plastic items you need can be made quickly, economically, and in quantity.

For SP in BV*
See Owens-Illinois

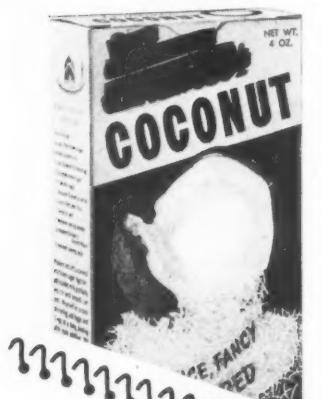
*Small Plastics in Big Volume

PLASTICS DIVISION
OWENS-ILLINOIS GLASS COMPANY

TOLEDO 1, OHIO • BRANCHES IN PRINCIPAL CITIES

CASE HISTORY

THE — CO., nationally known manufacturers of food products, needed additional package production.



Plant space was at a premium, and all available personnel were required for current production.

THE EDLAW CO. was contacted—A test production line was set up—Samples were run—Costs calculated—and regular production was started WITHIN 48 HOURS. FIVE MILLION 4 oz. packages have been added to this company's production in the last 12 months.

*Memo to
Contact
The Edlaw
Co. →*

Contract
Packaging
AT PRE-DETERMINED
COST
•
88-61 76th AVENUE
GLENDALE, L. I., N. Y.

MAKE BAGS

FAST

Up to 10,000 Per Hour

- Fast changeover time
- For small and large quantities
- Low operating cost



The "Chieftain"—new Modern Clipper machine—represents a brand-new design in bag-making machines. It makes flat and square bags of all heat-sealing materials; cellophane, Pliofilm, foil and plastics—with a speed and efficiency never before equalled. No skilled operator is needed. Easy to operate, precise and economical. Has center seam gluing and duplex bag making attachments.

HEAT SEALS

Because a proper heat-seal keeps out and keeps in all atmosphere, it gives you *certain* sift-proofing and leak-proofing. There is no seal that can compare with a heat-seal for protection . . . no machine that can rival the "Chieftain" for versatility and high-speed operation.

MODERN CONTAINERS CO.

3220 E. Olympic Blvd.

Los Angeles 23, Calif.

probably be up somewhat, according to representative manufacturers. Reasons mentioned: higher costs for materials, development, installation, service, freight rates and a fourth round of labor increases. Offsetting these factors is buyer resistance and political pressure to check inflation.

The industry is not too communicative about its intentions with regard to new and special machinery, but many manufacturers are discovering that today every machine sale represents a lot of effort. For the first time in a number of years, the buyer can shop around. As the backlog continues to decrease, competitive selling will again appear, putting manufacturers on their mettle.

Margarine carton suit

The Cudahy Packing Co., Chicago, has filed suit in the Federal Court in Wilmington, Del., against Standard Brands, Inc., asking for an injunction to restrain the latter from "imitating" the Delrich E-Z Color Pak margarine carton and for damages.

Cudahy points out that it was the first company to market its margarine in the Peters plastic bag, which enables the housewife to mix coloring matter into the margarine by kneading the bag, and that for the past two years Cudahy has nationally advertised Delrich in the E-Z Color Pak carton, in newspapers, magazines and on the radio. Recently Standard Brands started packaging its Blue Bonnet margarine in a plastic bag and made some changes in its carton.

According to the Cudahy complaint, the redesigned Blue Bonnet carton includes "certain features which make said carton confusingly similar in general appearance, get-up and color scheme to plaintiff's current carton." The complaint further charges that the Blue Bonnet package "is an infringement of plaintiff's copyrighted carton under the copyright laws of the United States" and that "the use by the defendant of the carton herein complained of has resulted, and continues to result, in confusion and mistake by the public with plaintiff's carton, so that defendant's product is bought in the belief that it is plaintiff's product."

Cudahy is seeking an injunction restraining the use by Standard Brands of the present Blue Bonnet carton or "any other carton imitative of plaintiff's distinctive carton." Cudahy also demands that Standard Brands be required to account for "any and all profits derived by the defendant and any and all damages suffered by the plaintiff by reason of the acts herein complained of" and that the defendant pay Cudahy \$1 for "each and every carton of oleomargarine sold by the defendant in the infringing carton . . .".

The Cudahy action in no way questions the right of Standard Brands to incorporate the Peters flexible inner bag in its margarine package. Although Cudahy was the first user of this type package, it is now also being used under license arrangements by a number of other margarine producers.

Good things to use, to eat

in CLEVELAND CONTAINERS

It may be a product for the consumer where instant appeal is imperative. It may be where packaging in assembly units will save time and eliminate possible damage en route from one department or plant to another.

CLEVELAND CONTAINERS constantly meet such varied needs . . . have almost endless advantages.

Our Creative Design Dept. . . . our experienced field representatives and nearby production facilities, combine to give you excellent creative and production service. Your inquiries will receive immediate attention.

The CLEVELAND CONTAINER Co.

6201 BARBERTON AVE. CLEVELAND 2, OHIO

- All-Fibre Cans • Combination Metal and Paper Cans
- Spirally Wound Tubes and Cores for all Purposes
- Plastic and Combination Paper and Plastic Items

PRODUCTION PLANTS also at Plymouth, Wisc., Ogdensburg, N.Y., Chicago, Ill., Detroit, Mich., Jamesburg, N.J.

PLASTICS DIVISION at Plymouth, Wisc. • ABRASIVE DIVISION at Cleveland, Ohio

SALES OFFICES: Room 5632, Grand Central Term. Bldg., New York 17, N.Y., also 647 Main St., Hartford, Conn.

CANADIAN PLANT: The Cleveland Container Canada, Ltd., Prescott, Ontario

Now Easy, Sure, Perfect HEAT SEALING

with the
WELLS THERMOSEALER

**Amazingly Accurate CONTROL of Base-Heat
Properly Seals Heat-Sealing Materials**

Each heat-sealing material requires its own particular temperature to seal it properly.

The Wells Thermosealer solves this tricky problem—makes it easy—because Wells developed an adjustable Thermostat that holds the temperature of the aluminum base within the close tolerance required for the given heat-sealing material. You get perfect seals. In devices where the temperature is not closely controlled, sealing is haphazard.

Style TF
Listed by
Underwriters'
Laboratories, Inc.



Sold by Dealers in Heat-Sealing Materials

WELLS MANUFACTURING CO.

220 NINTH STREET  SAN FRANCISCO 3, CALIF.

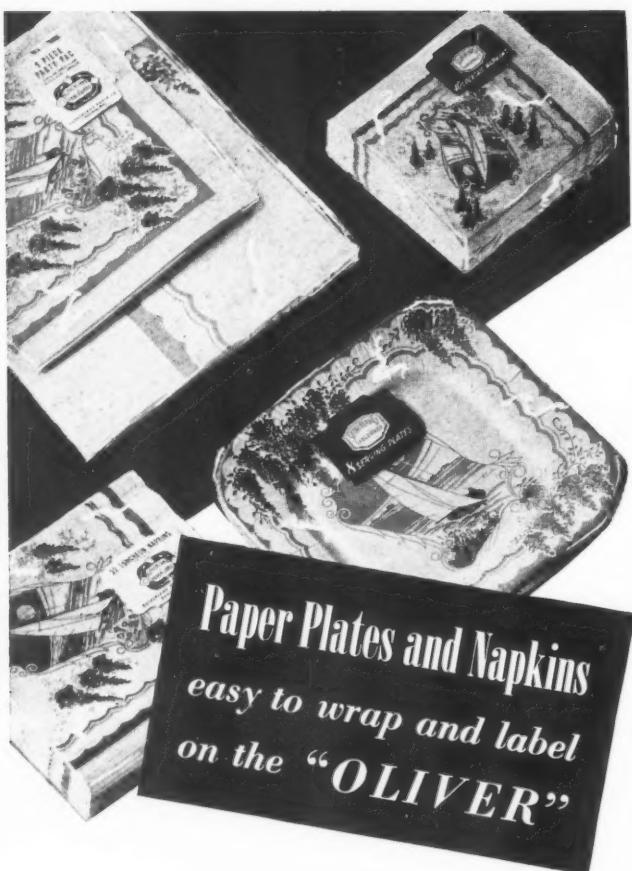
ASSURES PERFECT SEALS

For more than 10 years the Wells Thermosealer has proved reliable. It is sturdy built for long years of good service. Made by the Wells Manufacturing Co., a prominent electrical manufacturer of 30 years' experience, the Thermosealer is widely used the nation over. Users try one, like it, and buy more.

It plugs into any Alternating-Current Convenience Outlet of 110 volts. Properly insulated and built for safe use. Has long-lasting full-size Heating Element. Adjustable Temperature Control of high accuracy.

The Wells Thermosealer, built of Aluminum and weighing but 10 ounces, does not fatigue the operator.





**Manufacturers of Paper Luncheon Sets
choose the "Oliver" for its many advantages**

To package all items of paper luncheon sets attractively at low cost calls for a fast, flexible machine. That's why leaders in this new field choose the "Oliver."

Some items can be wrapped without supports; others require a cardboard which is automatically fed onto the infeed conveyor.

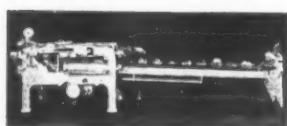
As many as six different items are packaged. For one machine to handle all these packages calls for quick adjustability. The "Oliver" handles up to 45

packages a minute in the widest range of sizes. It can be changed for package size in a minute or two. Wrapper length can be adjusted while machine is running. Switch from end-fold to underfold instantly. The folds are neat, the seal extra strong. If printed wrappers are used, an electric-eye registers the design perfectly.

Smart, low-cost labeling is another must for packaged luncheon sets. The "Oliver" securely heat-seals a diecut label from a continuous roll to the wrapper. The finished package attracts the eye, sells quickly.

Do you have a packaging problem remotely similar to this? Get all the facts on the versatile "Oliver."

**OLIVER MACHINERY CO.
GRAND RAPIDS 2, MICHIGAN**



The "Oliver" is made in seven different size ranges. With minor changes in equipment it is successfully packaging baked goods, fresh meats and produce, boxed candies, boxed flowers, various textile items, etc.

"Oliver" Wrapping Machine

WITH "OLIVER" AUTOMATIC ROLL-TYPE LABELLING SYSTEM

Frozen fruit standards

The National Assn. of Frozen Food Packers has filed with the Food and Drug Administration a complete regulation and supporting arguments for proposed standards of identity and fill of container for major frozen fruits. These documents were filed with the government agency following lengthy hearings on standards held by the Food and Drug Administration.

In announcing the filing of the proposed regulation, a spokesman for frozen fruit packers stated that the industry proposals reflect careful consideration that has been given to problems both of the industry and of consumers. Packers are insistent that the regulation shall not be written in such a way as to guarantee an economic advantage to particular supplying groups or to control manufacturing procedures as such. The packer group has consistently maintained that the proposed standards must apply to the finished product and not to methods of manufacture.

Packers have called attention to the fact that consumers desire different degrees of sweetness in the finished product and on that basis insisted on a provision for light syrup packs.

The packer group also has taken the position that labeling in the interest of consumers need only show those facts which will permit the consumer to choose between different packages of the same item and those facts which will influence the use to which the consumer will put the product.

U. S. quarterly on packaging

A new Government publication of major importance to the package manufacturing and consuming industries made its initial appearance last month. Called "Containers and Packaging," the quarterly publication is issued as one of the group of Industry Reports by the Office of Domestic Commerce of the Department of Commerce and is devoted to the statistics of container production.

A foreword to the December issue explains that the container and packaging field "has expanded to such proportions that it is today one of the major basic industries in our national economy." The report, it says, will be designed "to assist both manufacturers and consumers in more intelligent planning of their operations."

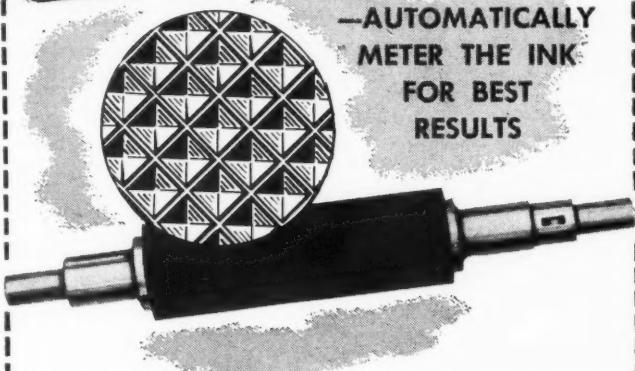
The 20-page first issue contains up-to-the-minute surveys of the supply, demand and price trends in each of the major categories of containers, and numerous tables, charts and graphs tracing trends from 1940 to 1948. The possible effects of Government stock-piling and restriction orders, and other matters, are discussed.

"Containers and Packaging" will next appear in February and every third month thereafter. Subscriptions may be entered through the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., at 60 cents a year.

EVENFLO

ANILINE PRINTING ROLLS

—AUTOMATICALLY
METER THE INK
FOR BEST
RESULTS



EVENFLO eliminates ink waste, poor quality runs and rejects due to improper inking...saves money on every job.

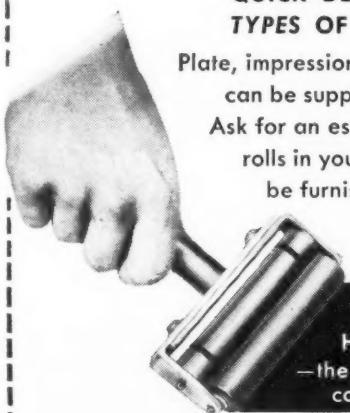
The new Evenflo engraved ink-metering rolls make tedious, time consuming adjustments unnecessary. Ink is fed in the exact quantity necessary for fine presswork, continuously and automatically. No ink is wasted, no press time lost, less printing stock is spoiled due to irregular inking. Evenflo is the one sure way to better printing and reduced costs.

★ ★ ★

PRESS BUILDERS—Improve your aniline presses by installing Evenflo metering rolls as original equipment. Prices will be sent on receipt of your blueprints or sketches.

QUICK DELIVERY ON ALL TYPES OF ANILINE ROLLS

Plate, impression or special aniline rolls can be supplied promptly on order. Ask for an estimate on any or all the rolls in your press. Quotations will be furnished without obligating you in any way.



EVENFLO
HAND PROOFER
—the handy way to test
color and coverage

No need to set up a machine for testing ink. Quick as a wink, Evenflo Hand Proofer produces an exact sample. Keep these time and money savers on hand in your plant. Interchangeable Evenflo rollers make it possible to test with a roll that matches the one in your press or test for presses equipped with other than Evenflo rollers.

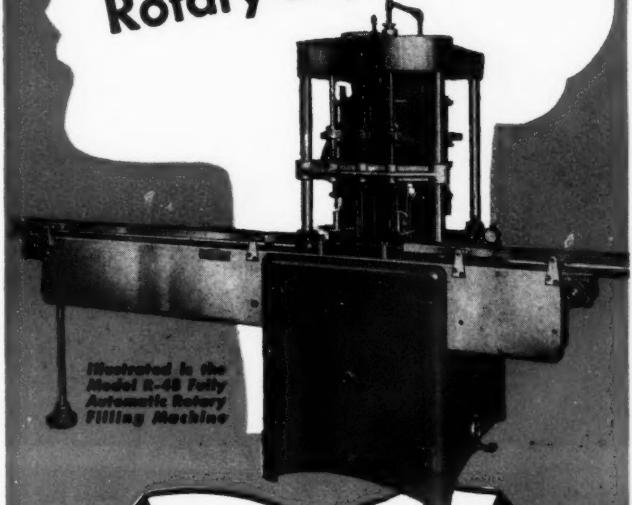
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PRODUCT OF
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1014 OAK STREET, ROSELLE, NEW JERSEY

Builders and designers of paper converting machinery, aniline printing equipment, tension devices and custom mechanical specialties.

RICHARD HUDNUT
Selects

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Fully Automatic
Rotary Liquid Fillers



Illustrated is the
Model R-48 Fully
Automatic Rotary
Filling Machine

THE largest companies in the United States with difficult filling problems, select **MRM LIQUID FILLING EQUIPMENT** because they are simple in design, sturdily constructed, extremely versatile and moderately priced. Maintenance is at an absolute minimum and can be done with unskilled help.



A Hudnut Beauty product must live up to the most rigid quality standards. A quality product calls for a quality filling machine . . . that is why **MRM** fillers are used.

Write Dept. M.P.-1 for catalog

mr m company, inc.

191 Berry St. • Brooklyn 11, N.Y. • Evergreen 7-3936

Manufacturers of a complete line of fully automatic and semi-automatic liquid filling equipment.



**Quick Change Heads
on the 1949 Knapp
SEMI-AUTOMATIC**

To Wrap Various Sizes

Low in Cost! Available Now!

Yes, you can have *as many heads* as you wish on the 1949 KNAPP SEMI-AUTOMATIC! These heads are quickly and easily interchangeable. Each one is designed to make a taut, smart wrap . . . a tailor-made wrap in the KNAPP tradition of excellence. These heads will give a perfect wrap to various sized packages as follows: 4" to 12" long, 2" to 10" wide, $\frac{3}{4}$ " to $\frac{3}{2}$ " high. KNAPP SEMI-AUTOMATICS are backed by the KNAPP reputation for efficiency, sturdiness, fewest working parts, low initial cost, minimum upkeep. Cut down your overhead . . . improve appearance and sales . . . investigate the KNAPP SEMI-AUTOMATIC immediately.

Send Sample of Your Product to . . .
KNAPP-WRAPP
 DON'T JUST WRAP • "KNAPP WRAPP"
 KNAPP MANUFACTURING COMPANY
 2568 San Fernando Road, Los Angeles 41, California

1950 packaging show moved

The 1950 National Packaging Exposition and Conference of the American Management Assn. will be held in Chicago, probably at the Navy Pier, the week of April 16. Agreement on this change in plans was reached at a special meeting of the Exhibitors' Advisory Council late last month, after questions had been raised by some of the machinery-manufacturer members. The 1950 show had originally been scheduled for Philadelphia. The 1949 show will go on as scheduled at Convention Hall, Atlantic City, May 10 to 13. The change in geographical location of the A.M.A. national show will not affect the 1949 and 1950 plans of the West Coast Packaging Exposition & Conference, San Francisco, which is independently sponsored by Clapp & Poliak for the West Coast area only.

Sealing meat casings

A new method of sealing sausage and other meat loaves in artificial casings is reported to be meeting with unusual success. Now in everyday use in several Mid-



west plants, after extensive field testing, the new method is said to strike a telling blow at sharply increased labor costs.

Inexpensive equipment and simple operation of the process, it is claimed, make it practicable even in small and medium-sized plants. Casings used are pre-tubed Pliofilm-type casings.

Advantages include a direct saving on casing price, as a shorter casing can be used for heat sealing. With the old method of tying, it was necessary to have a casing which would be long enough to gather at the ends before executing the tie. Usually the excess casing would be trimmed and discarded. With the heat-sealing method, the 2 or 3 in. of casing amounts to a substantial saving to the packer. A saving on string, ordinarily used for closure on the casings, is possible, as the use of string is entirely eliminated. Heat sealing, it

stop and think — say DRISCOLL ink



FOR A GOOD JOB EVERY TIME — ON ANY TYPE
OF PRINTING PAPER — LETTERPRESS, OFFSET OR
ANILINE, BLACK OR READY-BLENDED COLORS

MARTIN DRISCOLL & CO.

610 FEDERAL STREET, CHICAGO 5, ILLINOIS

BRANCH: 407 E. MICHIGAN ST., MILWAUKEE, WIS.

Affiliated Concern: Great Western Printing Ink Co., Portland, Ore.

CHOOSE CRCO

New Way

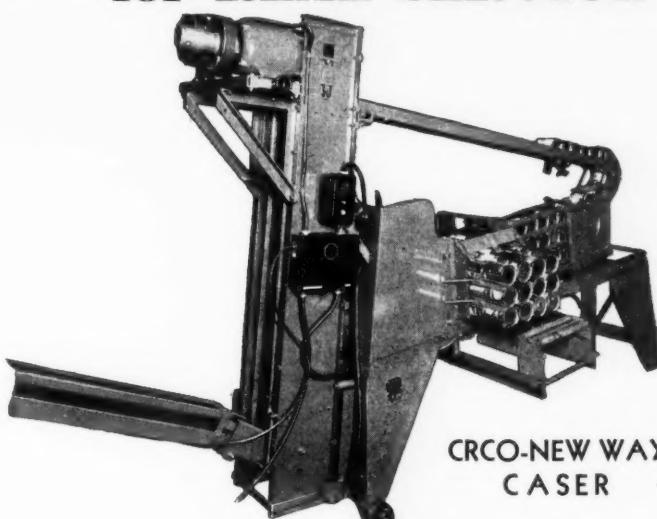
With CRCO-New Way Casers, anyone packing in cylindrical tin containers can speed up operations and lower warehouse costs. Sturdy, precision-built equipment that will perform its duties season after season.

Several models are available, ranging from one which delivers about 10 cases a minute to a fully automatic "one-shot" model which handles 20 cases or upwards per minute, depending on the ability of the operator. It's the world's finest!

Investigate the savings you can make by installing a CRCO-New Way Casing.

Send for Special Catalog illustrating the Complete
CRCO-New Way Line of Casers, Labeling Machines,
etc.

CASERS for REAL SERVICE



CRCO-NEW WAY
CASER



Chisholm-Ryder
COMPANY OF PENNSYLVANIA
HANOVER, PENNSYLVANIA

Packard
presents



TWO ROUND CONTAINERS

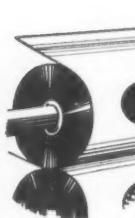
IDEAL FOR FOOD PRODUCTS

Housewives acclaim the easy-operating dispensers on these Packard spiral wound containers. The small container has a push-in closure which allows the proper amount of grated cheese to be shaken out. The large container has a completely sealed, readily opened revolving top, perfect for breadcrumbs and other granular products. This closure is very inexpensive and any size and number of sifter holes are possible.

Many other closures and low cost spiral wound containers are made by Packard. Various metal end and paper end styles are available in all diameters and lengths. Want samples suitable for your products?... Tell us what you make.

Packard Container Corp.

5811 PARK AVENUE, WEST NEW YORK, NEW JERSEY
PHONE UNION 5-5818
NEW YORK CITY
TELEPHONE LO 4-2348



Gotham Gravure Inks

*NEOROTO... LACQUER TYPE INKS

Ideal for plain and moisture proof cellophane. Also excellent for glassine, foil, paper.

*ZYROTO... TOLUOL AND XYLOL INKS

Fast drying and economical.

*MIROTO... NAPHTHA THINNED INKS

Low priced... for fancy papers.

*SPIROTO... ALCOHOL BASE INKS

Will not attack rubber... mild odor.

*Reg. U. S. Pat. Off.

GOTHAM INK & COLOR CO.

Established in 1937

5-19 47th Avenue, Long Island City 1, N. Y.
IRonsides 6-3120

is said, eliminates the existence of the air space between meat and casing usually found in tied casings. The heat-sealed end of the casing fits snugly against the end of the loaf. Heat sealing produces a neater finished package with greater sales appeal. The elimination of air space within the casing also helps to prevent mold formation and loaf deterioration.

The same number of people used for tying can produce almost twice the number of loaves when heat sealing. A seal very similar to that found on a loaf of bread is used. After the folds are formed by the operator, the loaf is pushed against a hotplate. A short, firm contact for a fraction of a second is all that is necessary to seal the casing. A vertical hotplate has been used very successfully in Midwest plants. The heating surface is covered with Teflon, which prevents the casings from adhering to the plate.

The casings can also be sealed with hand sealing irons with the folds held in place. Teflon should also be used with these irons.

CREDITS: *Mil-O-Seal casings manufactured by Milprint, Inc., Milwaukee, Wis., of Goodyear Pliofilm. Corley-Miller vertical hot plate, Miller Wrapping & Sealing Machine Co., Chicago. Hand sealing irons, Wells Mfg. Co., San Francisco.*

Log Cabin Syrup

(Continued from page 91) the familiar package once more appeared in *Life* and three other national magazines, and national radio promotion has been conducted via hitchhikes on the "House of Mystery," "New Faces" and "Mr. Ace and Jane" network programs.

So far as sales volume is concerned, it can be said that General Foods has doubled the volume of Log Cabin business since it took over in 1927.

As aggressive merchandisers and advertisers, the General Foods executives know the value of the Log Cabin package shape on the counter for display, for point-of-sale contests, for free publicity such as charity drives in which the little log cabins have been used as coin banks—they even visualize its effectiveness in television. They know that, backed up by generous advertising campaigns, those log cabins sell syrup.

It might be argued that the merchandising power of General Foods could sell the same amount of syrup with or without any link to the unique package which has in itself become a famous trademark. But you'd have a hard time finding anybody in the company who would like to try it.

CREDITS: Current packages—*Cans and Newman closures, American Can Co., New York; decanter bottles designed by Owens-Illinois Glass Co., Toledo, Ohio, and supplied by Owens-Illinois and Anchor Hocking Glass Co., Lancaster, Ohio; bottle closures, Ferdinand Gulmann & Co., Brooklyn; bottle labels, U. S. Printing & Lithograph Co., Cincinnati, Ohio. Machinery—Can fillers, Elgin Mfg. Co., Elgin, Ill.; can closing equipment, American Can Co., New York; bottle washer, filler and capper, U. S. Bottlers Machinery Co., Chicago; labeler, Economic Machinery Co., Worcester, Mass.*

FOR Good packaging...

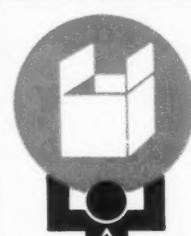
SOLID FIBER CONTAINERS

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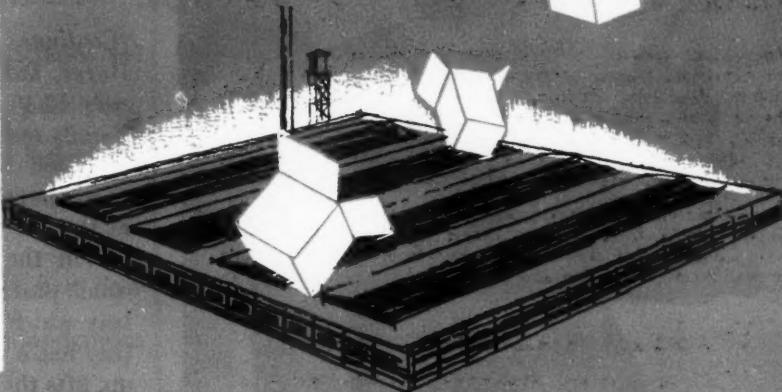
CORRUGATED CONTAINERS

FOLDING CARTONS

CLAY COATED CARTONS
SET-UP BOXES

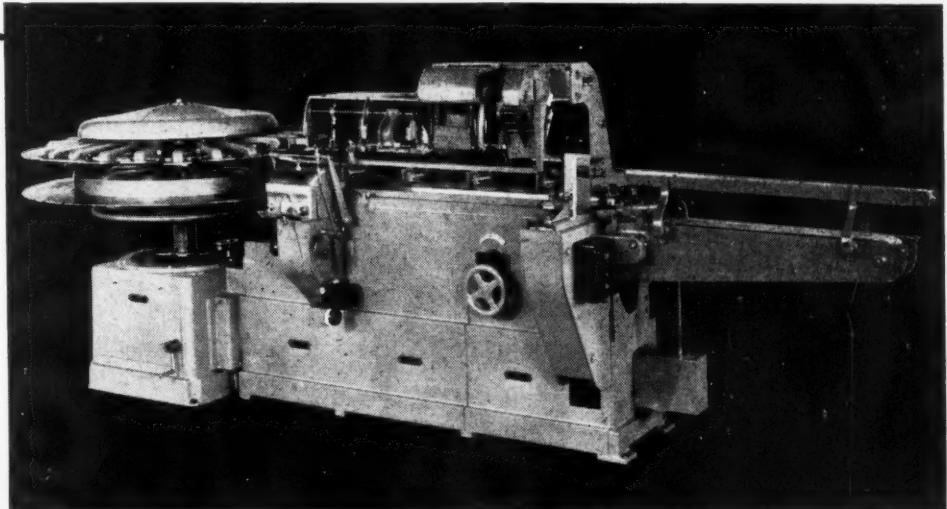
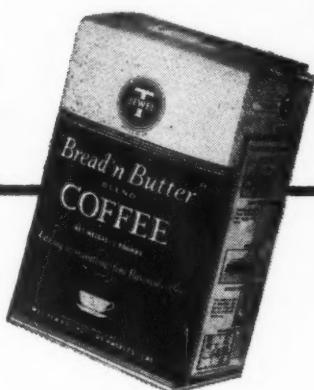


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BOXMAKERS



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CUT YOUR
PACKAGING
COSTS



IMPORTANT savings invariably result when a SEALTITE Bag Sealer is installed in a packaging line. Some users report costs as much as \$500.00 lower per month per machine than with previous methods of packaging.

SEALTITE is fully automatic. It opens

bags, fills, settles, shapes and seals at speeds ranging from 30 to 50 bags per minute on standard gusseted 2 to 10 lb. paper bags. SEALTITE delivers a square, flat-topped, sift-proof package that stacks like a carton.

If you are packaging in paper bags, write for information on SEALTITE.

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BUFFALO 13, N.Y.

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Recognized the world over
as standard bursting test



Motor-Driven Model C Mullen Tester

Tests materials not exceeding .025" in thickness and a bursting strength of 200 pounds. Gauge capacities 30, 60, 100, 120, 160 and 200 pounds per square inch. Note two gauge-mounting by use of manifold for testing materials of widely different strengths.

The Mullen Tester operates on the hydraulic principle—bursting strengths are determined irrespective of any other factor. Conforms to ASTM and TAPPI standards.

Send for booklet describing complete line of Perkins Testers.

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Engineers and Manufacturers

Holyoke, Massachusetts

Increased closure prices

The Owens-Illinois Glass Co. has announced price increases of approximately 10% on its metal and plastic closures for glass containers effective Jan. 1, 1949.

Products involved in the increase are screw and lug-type metal closures made generally of tinplate, and also stock and private-design plastic closures made of phenolic and urea formaldehyde molding compounds. Continued advance in the cost of materials was cited as the reason for the increase in prices.

Giving the razor an edge

(Continued from page 123) head as the larger Fashion Razor, but a different molded casing and retails for only \$2.49 as compared with \$3.95 for the other one. Family resemblance in the packages is achieved through the same color scheme and the same type of set-up box. Cover paper of the box is gold and white with bright red as the accenting color for the name and the dot of the "i" in the secondary copy, "Fashion Razor." The small pastel-colored razor stands upright in a die-cut tray which is covered with black flocked paper. The tray has a ribbon tab on the front which, when pulled up, lifts the tray and exposes a second tray holding the injector and brush.

Because The Deb, like the larger Fashion Razor, looks more like a compact or perfume flacon than a razor, Eversharp folds a small gold foil-covered card over the razor inside the box which the dealer can use as a simple display piece by merely unfolding and slipping it into the edge of the tray. Copy and a pair of shapely legs on the card, shown in the accompanying illustration, tell the story and identify the product quickly and effectively.

Daring to be different in packaging is profitable, Eversharp believes. Initial dealer reaction to the Twin-jector package is said to be "very enthusiastic" and re-orders reaching the company too late to be considered as Christmas gift demand are continuing at a good rate, according to company officials.

CREDITS: Design of Twin-jector molded package and Deb razor housing, Raymond Loewy Associates, New York. Twin-jector package and Deb razor housing molded by E. B. Kingman Co., Leominster, Mass., using Tennessee Eastman butyrate and Monsanto polystyrene. Molds, Standard Tool Co., Leominster, Mass. Twin-jector carton and Deb display cards, American Coating Mills, Div. of Owens-Illinois Glass Co., Elkhart, Ind. Deb set-up box, Imperial Paper Box Corp., Brooklyn.

CORRECTION: In the article "Best Industrial Packs," p. 134, November issue, the Sperry Gyroscope and Congoleum-Nairn packages which won first and second awards, respectively, in the Group 4, General, classification of the Industrial Packaging Competition were inaccurately described as wood-cleated, treated fibreboard boxes. Both are packs made of chemically hardened and formed corrugated material. The Congoleum-Nairn box has wooden ends.

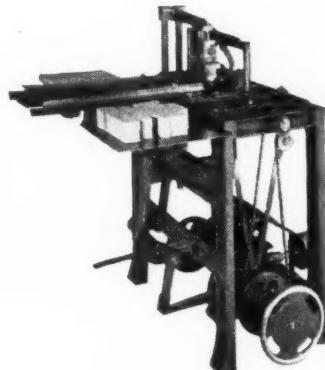
AUTOMATIC PACKAGING CUTS COSTS

Leading companies throughout the world packaging everything from biscuits to tacks are reducing their costs through the use of PETERS equipment.

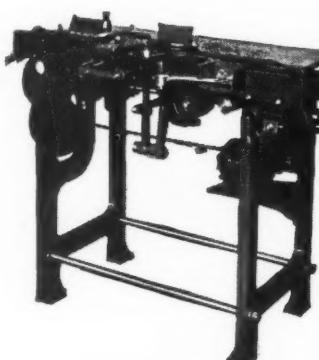
These economical, easy to operate machines set up and close packages rapidly and inexpensively. They will raise your profit margin through increased production and lowered cost.

Send us samples of the cartons you are now using and we will gladly make recommendations to meet your requirements.

This PETERS JUNIOR CARTON FORMING AND LINING MACHINE sets up 35-40 cartons per minute, requiring only one operator. After the cartons are set up they drop onto a conveyor where they are carried to be filled. Machine can be made adjustable to set up several size cartons.



This PETERS JUNIOR CARTON FOLDING AND CLOSING MACHINE closes 35-40 cartons per minute, requiring no operator. After cartons are filled, they enter machine on conveyor and are automatically closed. Can also be made adjustable to close several different size cartons.



PETERS MACHINERY COMPANY
GENERAL OFFICE AND FACTORY
4700 RAVENSWOOD AVE., CHICAGO 40, ILL.

(This space
is wasted
to illustrate
a point.)*

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MODERN PACKAGING reserves the right to accept, reject or censor classified copy.

For further information address Classified Advertising Department, MODERN PACKAGING, 122 East 42nd Street, New York 17, N. Y.

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WANTED: Plastic scrap and rejects in any form. Cellulose Acetate, Butyrate, Polystyrene, Vinyl, Polyethylene, etc. We pay top prices for clear, colored and printed scrap in any quantity. Box 781, Modern Packaging.

GLUE DEPARTMENT—Folding Box. Man capable of taking complete charge 1 Straight Line, 2 Right Angle Gluing Machines. Pacific Coast. Give age, experience, etc. Box 782, Modern Packaging.

FOR SALE. Five-Color Gravure Press in excellent condition, complete with drive and many extras. Handles 26" web at speeds of from 25 to 1000 feet per minute. For further information write Box 778, Modern Packaging.

FOR SALE: Nearly new Fred Goat High-Speed Satchel Packer for gelatine dessert and other dry-mix powders. Suitable for 4 oz. satchels down to 1/2 oz., depending upon gravity of product. Operates efficiently at 3600 units per hour. Will sell at heavy discount. Box 783, Modern Packaging.

WANTED—Press Room Foreman: For a leading carton manufacturer in the Southwest. Must be well grounded in multi-color and screen work, and have a highly developed sense for top quality and production work. Carton experience desirable but not absolutely necessary. All replies held in strict confidence. Write Box 784 of this magazine.

WANTED a fully automatic cartoning machine for cartoning an Owens-Illinois 8-oz oblong bottle #A 4289 in a carton 5 3/8" x 2 1/2" x 1 1/4". State make of machine, price and location for inspection. Box 785, Modern Packaging.

PLANT FACILITIES available to manufacture or package cosmetics, pharmaceuticals, chemical products, etc., or hand assemble small items. Long used by several leading companies for long and short runs. Now open for a sound proposition to utilize all or part of these facilities. Location: Newark, N. J. Box 786, Modern Packaging.

THE "SEVERAL nearly new Roto Cellophane Bag Converting Machines at forty per cent off," as advertised in this section over the past several months, were manufactured by the now defunct Kono-Mead Equipment Corp. They are not to be confused with the machines produced by the Roto Bag Machine Corporation of New York City.

FOR SALE: New CECO—latest model folding box package sealing machine, with special automatic self-inking imprinting or code attachment, in use only 2 weeks. Sale, due to change of packaging. Portable on wheels, and adjustable, can accommodate following size cartons: Minimum: length, 1/2"; width, 1/2"; depth, 2"; Maximum: length, 3"; width, 2 1/2"; depth, 6". Write Stetz Co., 257 West 17 Street, New York, N. Y.

SALES MAN WANTED: Laminator and coater of paper, films and foils desires experienced man with car, living in Chicago or suburbs, willing to travel. Salary and expenses. Write age and qualifications. Applications will be treated in confidence. The Floyd A. Holes Co., Bedford, Ohio.

REPRESENTATIVES WANTED! Old established manufacturer of heat sealing packaging machines seeks aggressive agents on exclusive basis. Good territories now open. Box 788, Modern Packaging.

MACHINE DESIGNER draftsman—Experienced in one or more of the following specialties: automatic packaging, printing presses, bag making machinery or other paper converting equipment. Excellent opportunity for higher wages and securities. Permanent employment in development work. Work shop facilities excellent; air conditioned quarters. A chance for the family to enjoy the benefits of an ideal community. State experience and full particulars to expedite interview at our expense. Applications will be kept strictly confidential. Box 789, Modern Packaging.

GLASSINE LINERS—Bargain. One million 5 x 2 1/4 x 11 1/2 30 lb. Glassine Liners for sale cheap—Write for price and sample. Montana Flour Mills Co., Cleveland, Ohio.

SALES MAN WITH technical or chemical background to handle a line of Polyethylene inks with well-established manufacturer. Compensation will be discussed. Box 790, Modern Packaging.

COATINGS—LAMINATIONS—impregnations—adhesives— Consulting Technical Director of leading company for the past seven years will be available shortly due to reorganization. Textiles, papers and metals. Rubbers, resins, lacquers and colors. Production or Development. Metropolitan New York only. Box 741, Modern Packaging.

SPECIAL OFFERINGS—Pneumatic Scale Co. Automatic Cartoning Unit consisting of Automatic Carton Feeder, Bottom Sealer, Rotary Filling Machine, Top Sealer and Interconnecting Conveyors. Pneumatic Scale 4 Head Automatic Net Weigher for free flowing products. Standard Knapp #429, Ferguson Packomatic Carton Sealing Machines. World Straightline Bottle Labeling Machine, labels front and back. New Jersey Labelrite Semi-Automatic Labeling Machine. Knapp #10 Adj. Can and Bottle Wraparound Labeler. Pneumatic Single Head Rotary Capper. Stokes & Smith Automatic Duplex Powder Filling Machines. Bagby Twin Piston Filling Machines. Horix SS and Karl Kiefer Rotary Visco Filling Machine. Package Machinery Model FA and FA2 Wrappers. We have everything in packaging and filling equipment. Tell us your requirements. UNION STANDARD EQUIPMENT COMPANY, 318-322 Lafayette Street New York 12, N. Y.

MIEHLE PRINTING pressman—Permanent position with Folding Carton Plant in Midwest division of national concern. Must be fully qualified One Color Pressman. In first letter, give full particulars as to experience, age, and wage expected. Answers held confidential. (Our employees know of this ad.) Box 791, Modern Packaging.

WANTED MAN—Production Scheduling and Supervision with some Cost Analysis—Estimating—by well established carton manufacturer in Ohio. Excellent opportunity. Write giving background. Correspondence strictly confidential. Box 792, Modern Packaging.

FOR SALE—Two Cummins, #75 Perforating Machines. Address P. O. Box 300, Peoria 1, Illinois.

CLOSE-OUT—polystyrene sheeting, 9,000 lbs. .010 Polyflex in rolls 1,000 ft. long 20" wide in original packages as made and shipped by Plax Corp. available at half price 4 1/2 per lb., due to change in line. Subject prior sale, in order received. Contact E. C. Gaymann, Interstate Folding Box Co., Middletown, Ohio.

WANTED: BRIGHTWOOD Machine #6 with Automatic collapsing attachment. Box 787, Modern Packaging.

MODERN PACKAGING

Rayco Flock

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Use the new Coverings!

Use the new coverings made with Rayco Flock to make your new package pleasing to the eye and inviting to the touch. These rich flocked coverings are available from your supplier in all colors, on paper, cloth and cardboard for all box, wrapper and container purposes. And remember—to get the really fine effects of genuine suede leather, velvet, velour, etc., use the Rayco Flock specifically developed and proven for each job, specially processed under exclusive methods.

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"Raycote"—a flock composed of uniformly cut rayon fibres to produce on any surface a pile effect such as velvet, plush or velour. Made under U. S. Patent No. 2014947.

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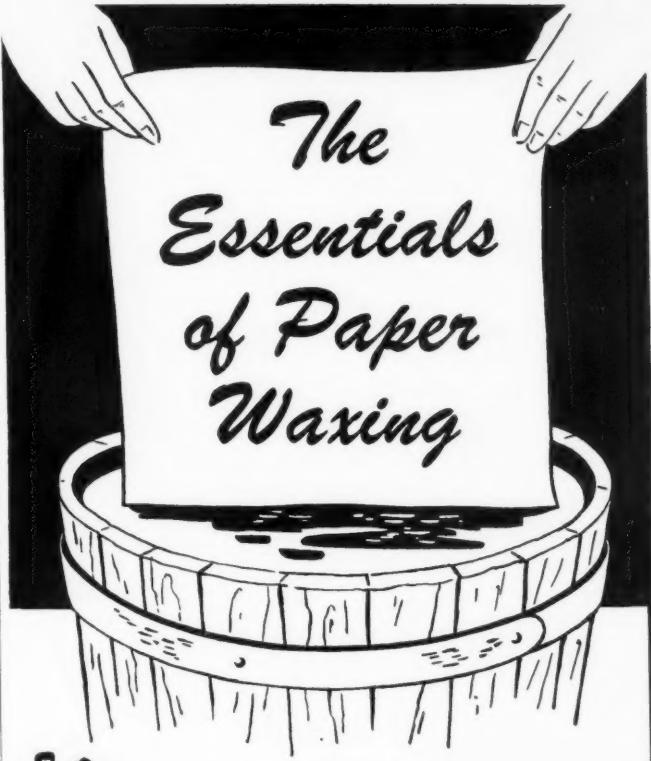


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JANUARY 1949

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...have been on our
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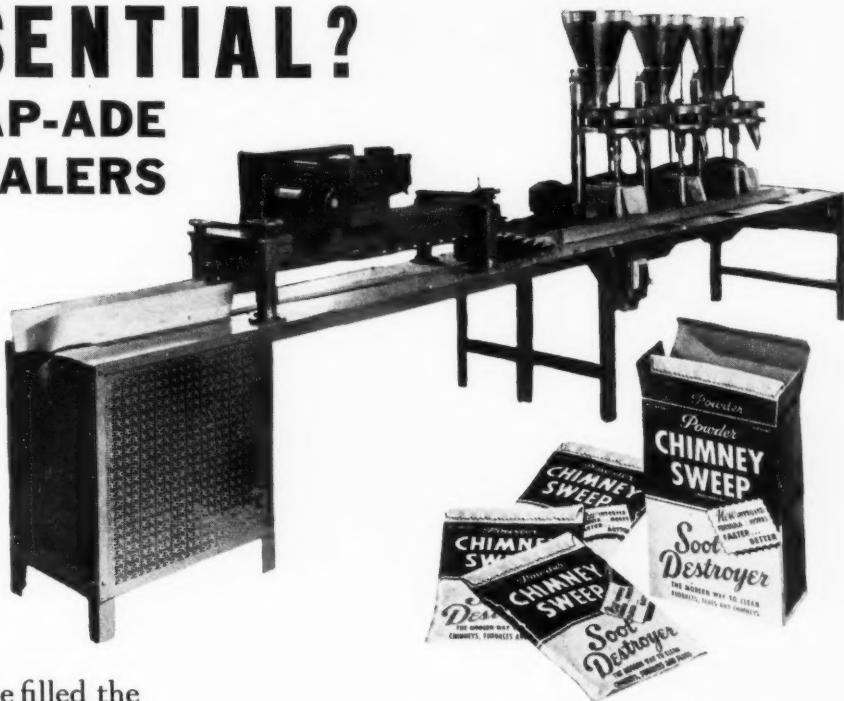
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Modern packaging

A BRESKIN PUBLICATION

Published by Modern Packaging Corp.
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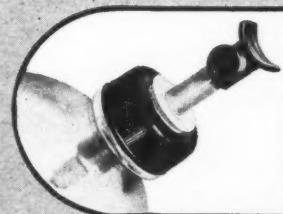
The Transealer operates on 110 volt A.C. and is covered by a service and maintenance guarantee.



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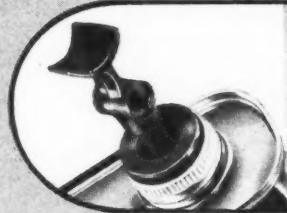
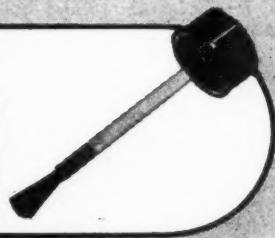


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"PICTURE CANDIES"

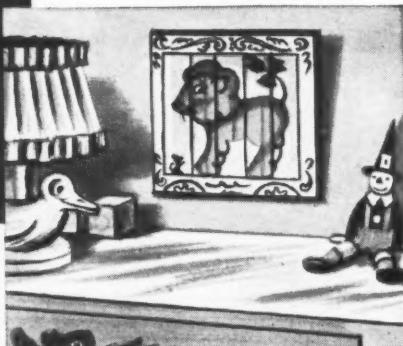
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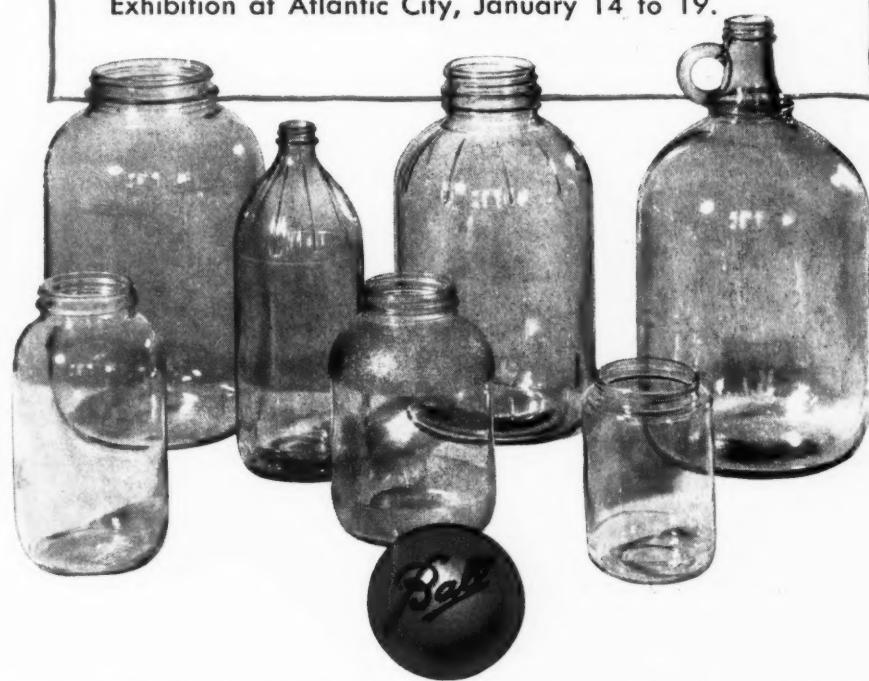
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